Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

MONTHLY REPORT

OF

THE AGRICULTURAL DEPARTMENT

FOR

FEBRUARY

1865.

WASHINGTON:
GOVENMENT PINTING OFFICE
1865.

MONTHLY REPORT.

DEPARTMENT OF AGRICULTURE,
Washington, February, 1865.

This report contains various articles, arising out of the correspondence of the department on topics interesting to the farmer, and demanding of him such an effort on his part as will tend to lessen the evils they refer to. The greatly decreased value of much wheat because of the prevalence of smut in many localities, is a loss that can easily be avoided, as will be seen from the letter of Mr. Haden. If the evil is not arrested, it will continue to spread every year, through the mode of threshing so prevalent in the west, where the smut most largely prevails.

The letter from Taft, Weeden & Co., of Providence, Rhode Island, will be read by all wool-growers, because it relates to a subject interesting to them. The *kind* of wool most in demand is directory of the labor of the farmer, and it will always be a leading purpose of these reports to present such facts and opinions as will aid him to look forward to the future demand as present circumstances indicate. It is a purpose, among many others, that has demanded the publication of these reports as a means of constant communication with our vast agricultural community.

With a view of rendering every possible aid to agriculture, an agricultural museum has been commenced in this department, so that specimens of every product may be collected and compared. Among these, it is my aim to have every breed of sheep exhibited, and their most useful crosses, that the farmer may be guided to the production of such kinds of wool as he may deem most profitable for him to grow. To render such an exhibition still more useful, it is desirable to have specimens of foreign wools of every kind, *just as they are imported, with their value and uses stated*, that our farmers may more clearly understand the varieties and qualities of wool necessary to manufacturers. The Commissioner desires such specimens and information from manufacturers, believing they will aid in establishing a more cordial understanding between industrial pursuits so mutually dependent.

And here I would remind all correspondents that the department receives free of postage all mail matter proper to be sent to it, not exceeding two pounds in weight.

The letter of Mr. Hoag details an experiment in what may be called transforming winter wheat into spring wheat. It is hoped that it will call forth general experiments next winter, for if his success is found to be general, the practical uses to which it can be applied will, in many seasons, render him a public benefactor.

The articles on agricultural education in England, hospital gardening, and the profits of industry will be interesting to all, the latter especially, when taken in connection with the statistics of the crops published in this report. The industry of the United States is so vast, and, when considered in its relation to the war, so wonderful in its productive results, that its bearing on the ability of

the nation to meet the debt occasioned by the war will receive the attention, not only of every American, but of all civilized nations. When the tables of the amount and value of the farm stock for the year 1864 shall be published, which it is expected they will be in the report for March, a table of the estimated annual production, for that year, of all the industrial pursuits, will be prepared to follow them.

Whilst much of the great aggregate value of the crops is to be set down to the difference between gold and currency values, and considerable to the war demand, yet, nevertheless, the productive capacities of the country are so vast that the shock of such a war, and the weight of so great a debt, cannot impede to any great extent or for any considerable time the accustomed progress of the nation.

The value of the leading crops, as estimated by this department, is, for 1862, $706,887,495; for 1863, $955,764,322; for 1864, $1,440,415,435. These values do not embrace the crops of Kentucky, which, for want of sufficient returns in 1863, could not be estimated, but for 1864 will be found in the general tables, but could not be embraced in the *comparative* statement just made. The advance in value during these three years is 103 per centum, and the chief causes of this great increase are shown to be from the war and the condition of the currency. The advance by the war demand is 30 per centum; by the currency value, 73 per centum.

For the universal approbation accorded to the reports of this department I return my acknowledgments. A public journal excepts to the policy of encouraging the growth of tobacco and hops, for the reason that their use may be regarded as immoral—the one a useless luxury, and the other made so by its use in brewing malt liquors.

It is not the province of this department to discuss *moral* questions. It would involve a discussion and action that would be without limit, for consistency would require a condemnation of *fine*-woolled sheep, because fine clothes are a luxury, and not an absolute want; and of the raising of the silkworm, for the same reason. It would force the department to ask from Congress a prohibitory tax on all sales of corn and other grains to distillers, and of hops and barley to brewers; to demand like duties on foreign liquors; to tax heavily all luxuries of whatever character. A moment's reflection must convince all that this department must take a *commercial* view of all agricultural products, as affording profit or loss in their production. The most virulent poisons are made and grown by nature for useful purposes, but ignorant or reckless application may make them the instruments of death. To this misapplication must be imputed the moral guilt, not to nature for producing them. Hops and tobacco, ardent spirits and poisons, flounces and silks, have each their proper use, and until this department advocates an immoral use of them it cannot justly be subject to censure. To the minister and the moralist must be left the consideration of moral questions, and to Cæsar must be rendered the things that belong to Cæsar.

ISAAC NEWTON, *Commissioner.*

THE SMUT, OR BUNT.

In many sections of the west the last wheat crop was much injured by the smut. For the purpose of separating it from the wheat, smut machines have been invented, and millers have used these with more or less success; but still the market value of smutted wheat is lessened, as well as a loss in the amount of the crop sustained by its presence. It is, therefore, much to be desired that the evil should be eradicated.

If farmers could be induced to grow their seed-wheat, as suggested in the article on the production of seeds in the bi-monthly report for November and December, 1864, the smut could be easily avoided; but we must not wholly rely upon what should be done, in a certain particular, as foregoing the necessity of other suggestions to effect a similar result. We therefore invite attention to the character of this disease, that a knowledge of it may lead to a more general guarding against it, and in compliance with the desire of several correspondents.

There are many varieties of smut, for it affects most of the grasses and grain crops, but none injuriously, except the wheat plant. When the crop is matured, it is found, sometimes, that even a third of the heads do not contain wheat grains; but where these should be, the chaff covering of the grain is found to be filled with a very minute dust, nearly black, very fetid, of unpleasant odor, and greasy. In the United States this disease is called *smut;* in England, *bunt.* The microscope reveals the fact that this dust is composed of grains, to which the name *spores* has been given—a common term to designate all seeds that are produced by *flowerless* plants. A square surface inch would contain five or six millions of these seeds, each of which can reproduce its kind, but to what extent, and under what conditions, is imperfectly known. It is evident, however, that the conditions are such that but few of these seeds are successful in reproduction, for otherwise the wheat crops would be destroyed by this disease. It is a parasitic fungus growth—parasitic, because it is sustained by the sap of the wheat plant, and not by its own; and fungus, because it is a soft and morbid excrescent growth, like the mushroom.

Much difficulty has been found in making these smut-seeds grow by artificial means, and hence the reason why the true character of the disease is so imperfectly understood. It differs from all like diseases in this—they, like the rust, live by directly drawing their nutriment from the sap of the plant they infest, never mingling with it; but the smut seems to change the nature of the sap of the wheat plant, so that, in maturing the grains, smut, and not wheat, is the product. Before the wheat heads are visible it is found to have the possession of them, and the sap of the plant is of a darker color than that of a healthy plant.

But the success in germinating the seeds of the smut has been more marked recently, and the results of the experiments indicate several stages of growth, but whether all are essential to the ultimate production of the seeds as found in

the wheat head is not determined. When some smut-seeds are placed in a drop of water on a piece of glass, a kind of stem shoots from them, upon which are produced small clusters of elongated, thread-like spores. These become united by short, transverse shoots, and when thus united, these thread-like spores produce other spores, differing in appearance, being thicker and shorter than these threads. The latter produce another kind of spores. "There are still," says a writer, "many points in the history of the growth and development through successive generations of the 'bunt' spores; but enough is known, on the one hand, to show that this is a true vegetative parasite, and not merely a diseased condition of the tissues of the wheat plant; and on the other, that it is perfectly distinct from all the phases of the other and similar parasitic fungi which affect the wheat crop."

This statement of the various forms and stages of the growth of smut exhibits a reproduction as singular as that of the aphis, or louse, noticed in the article on the hop plant. But it will be seen that abundant moisture is a condition of its growth, and the want of it is, no doubt, a leading cause why these almost infinite millions of seeds of the smut fail to reproduce themselves, and thus the wheat crop is saved from entire destruction.

Are these various stages of the growth and of the production of spores necessary to the formation of the seeds or spores, as found in the head of the wheat? Will the latter only germinate after winter has intervened? Are the perfect or last formed spores produced by a growth within or without the wheat plant? These questions cannot be answered; but the fact that the sap of the infected wheat plant is much darker than that of the healthy plant, indicates an inward growth, so changing the sap that it produces, through the ovary or germinating part of the wheat, the smut-seed instead of the wheat grain. Has each grain a circulation of sap separate from all others, so that on the same head there are grown wheat and smut?

If the growth of the spores of smut take place *within* the wheat plant, how do the parent spores obtain an entrance into it? It is supposed that the smut-seed are too large to be taken into the root. Do the second or third forms of these spores obtain an entrance? If so, how? Do they find their way through the outer covering of the plant, as the husk of the seed, and, living on its sap, perfect their own growth within the covering of the grain? Does their presence there cause a discoloration of the sap?

These questions cannot yet be answered; but the only practical object effected by the numerous investigations made in England, France, and Germany, is in the certainty that the smut spores are seeds having a vitality, through which the smut perpetuates itself, and that, by destroying this vitality, the wheat plant can be protected from the smut.

This can best be done by soaking the wheat-seed in a solution of bluestone, or oil of vitriol, which is sulphate of copper. The effectiveness of this preventive will be seen by the annexed letter from Mr. Haden, near Lexington, Kentucky. As to his suggestion of the cause of smut—that it is an injury from an insect depositing its eggs in the grain of wheat, which hatches the worm described by

him—this cannot be, because the worm must live upon the substance of the grain, like the weevil, and the grain could be destroyed only to the extent of the part consumed by it; its entire nature, from starch to fetid, greasy smut, could not be so changed by this worm, nor could it be resolved into smut spores, capable of vegetating and reproducing itself. It only shows that there is a worm whose natural food is the smut spores, and the egg of the fly is deposited among them, that it may there hatch, where the worm can obtain its food. It is but an instance of an insect enemy against a vegetable parasitic enemy of the wheat. But the bluestone is a much more efficient one, for we have tested it in the same way that Mr. Haden did, and it is in common use in the west.

FAYETTE COUNTY, KENTUCKY,
Near Lexington, December 8, 1864.

DEAR SIR: As you propose, in the next number of the bi-monthly report, to say something as to the best mode of "avoiding smut, and other deteriorating matters of our wheats," I have thought a few lines, giving my experience on the subject, might not be uninteresting, and perhaps furnish some additional information on a subject of vital importance to the wheat-growers of our country. To prevent smut, I simply soak my seed-wheat in a strong solution of bluestone, using ten pounds of the bluestone to one hundred bushels of wheat. It has proved infallible as a preventive.

Some four years since one of my neighbors harvested sixty acres of wheat, and I think I am safe in saying that one-fifth was smut. He sowed the following fall his entire crop from his smut wheat, after soaking it well in bluestone, and raised from it as fine and as pure wheat as I ever saw harvested. At the commencement of his seeding I prevailed on him to sow one acre in the same field without soaking it; the result of which was so much smut that he did not cut it, but let it remain for the hogs. To satisfy myself thoroughly, I concluded to sow three acres of the same wheat without soaking, and it produced so much smut that I did not harvest it. Since then we have always used the bluestone, and always with the most perfect success. Some of our best wheat-growers use a strong solution of salt, many of them claiming that it answers the purpose as well as the bluestone; but others who have used it have sometimes failed.

I think that I have made an important discovery as to what produces smut. I propose to state some facts, which I have never seen referred to by any writer on the subject, leaving it to time and the investigation of wheat-growers of the country to determine whether I am correct in my conclusions.

Some six years ago I was in one of my wheat fields, about twelve days before it was ready to harvest, and just as the grain began to assume a slightly yellowish appearance, I soon discovered that there was a quantity of smut. After a close examination, I discovered on many of the smut-heads a very small black and nimble insect, that always at my approach disappeared from the stalks of wheat by falling off, or sometimes by taking to wing. To my astonishment I found each grain perforated or punctured as if done by some insect, the hole or incision being perceptible to the naked eye at the distance of eight or ten feet. I cut several heads of the wheat, and exhibited them to many of my friends and farmers of the neighborhood. I was so struck with what I thought to be an important discovery that I carried them for examination to a gentleman of large experience, and who was in the habit of purchasing the wheat of my neighborhood. There happened to be present a half dozen or more of our best wheat-growers, and an examination of them revealed the fact that in many of the punctured grains of smut was found a small worm, which, in its general appearance, very closely resembled the common grub worm of our country, so

destructive some seasons to our young corn. I have continued my examinations from year to year, and always with the same results. About ten days before the grain is ready to cut, the smut-heads invariably show that they have been pierced, and a close examination always reveals the small grub-like worm. I should here state an additional fact, that the punctures or incisions in the grain always close up about the time the grain is ready to cut, so closely in many of the heads that you cannot detect with the naked eye any appearance of them, but with the aid of a glass they are plainly perceptible.

From the foregoing, I assume that the worm found in the smut-grains produces smut the following year. You sow the smut grains with the worm in them, which lies in the ground during the winter. The pleasant warm weather of spring warms it into active life, and it is changed to the insect, which is soon ready to ascend the stalks of wheat, punctures the grain, producing smut, and then disappears.

My Tappahannock is looking remarkably well; it will prove to be one of our most valuable varieties. I would like to know the result of the variety, distributed in 1863, called French white.

I am looking with much interest for the forthcoming report from your department. The Bi-Monthly is getting to be one of the institutions of the country. I close with the hope that Congress will extend to your department all efficient help.

Very truly,

J. J. HADEN.

Hon. ISAAC NEWTON, *Commissioner of Agriculture.*

AGRICULTURAL EDUCATION IN GREAT BRITAIN.

The subject of the education of the industrial classes is now undergoing a discussion in Great Britain, as it is in this country. The cause that has awakened this interest in it is found in the fact that a general opinion prevails recognizing the necessity of extending the right of suffrage to a greater portion of these classes than now exercise it. To fit them for its proper exercise is regarded as necessary; but how can this best be done is a question of much controversy, and one which seems to materially influence opinions on the nature of the instruction to be given.

In referring to the wonderful exercise of universal suffrage in the United States, as seen in the recent election of President, when, under most extraordinary circumstances, millions of men cast their votes, decisive of the exciting controversies originating in these circumstances with the same quietness they manifest in the most ordinary transactions of life, and as good-natured after the known result as after eating their dinners, Mr. Bright, the great reformer in the English Parliament, took occasion to restate his demanded reform for universal suffrage in Great Britain, and the means essential to that reform. He holds that the laws of *primogeniture*, which entail the real estate of the nobility upon the eldest son, should be abolished. His argument, expressed in a statistical form, will be seen in the following table, exhibiting the division of the profits of the soil between the landlord, (the noble,) the farmer or renter, and the laborer:

Estimate of the annual product of land in England and Wales in 1860, *as divided between the landlord, farmers, and laborers.*

Value of product of land		$521,000,500
Landlords' share	$214,779,815	
Farmers or renters' share	107,389,905	
Laborers' share	198,830,780	
		521,000,500

The result, gradually effected by the proposed reform measure of Mr. Bright, would be to break up these large estates, and oblige the owner to superintend his farm, as is done by the American owner. The landlord's share would then become merged in the other two, which would so meliorate the condition of both that the laborer could partake of those blessings of life—society, religion, a place in the state—fitted for the duties and enjoyments of each by proper instruction. How far he is now removed from these may be seen in the following estimate of the expenses of a laborer, his wife and five children, and their earnings:

Articles.	Cost.
Food	$100 00
Physic	30
Coals, candles, and soap	15 00
Clothes	30 00
Cooking utensils	1 50
Rent	20 00
Schooling and books	2 50
Total	169 30

The earnings of such a family—the wife and two of the children, supposed to be over ten years of age, and, therefore, required to constantly labor—are estimated at $201 20, leaving $31 90 as their net income, an amount that ordinary sickness would lessen.

These statistics, taken from Purdy on Rate of Wages of Agricultural Laborers in England and Wales, indicate the character of the clothing, and the statement is made that "the husband's cloth coat for Sundays cost fifty shillings, ($12,) but he had worn it for thirteen years, and his wife's bonnet, costing two shillings and sixpence, (sixty cents,) lasts for one year and a half."

It is easy to see why Mr. Bright demands an amelioration of this deplorable condition of the English agricultural laborer as a necessary condition of the recognition of his right to vote; but few, however, in England seem to partake of his lofty and wide grasp of the question involved in this reform movement, but the great majority seek the instruction of the renter only. Shall this instruction be to fit him for his occupation merely, or shall it have reference to his wants as a man? This is the question now discussed there—the same precisely as here—and there, as here, the discussion, as it progresses, grows warmer for the man.

All general education, in the language of the London Agricultural Gazette, should aim "to quicken powers of observation, to confer alert vitality and wakefulness, to create habitual thoughtfulness, to strengthen resolution, to foster religious feelings and conviction." And these qualities of mind belong as much to the industrial classes as to any other in society, for though covered with the sweat and dust of the harvest field, and begrimed with the smoke and soot of the forge and workshop, yet is the individual a *man*—a man, too, absolutely essential to free governments. Who, for a moment, can suppose that this rebellion could have been forced upon the country by the vaulting ambition of a class *not industrial*, if the labor of the south, like that of the east and the west, had had its powers of observation quickened by instruction, and habitually and actively thoughtful of its own temporal interest and religious convictions? But the inevitable tendency of slavery is to deprive the industrial classes of such instruction by placing labor in a lower caste, and therefore has that institution been justly regarded as inimical to free government.

Justice to the *man*, then, demands in England, as well as here, such an education as alluded to in the following extract from the London Agricultural

Gazette. Among the writers in that country is Mr. T. Dyke Ackland, who has recently issued a pamphlet, containing letters addressed to the president of the Royal Agricultural Society of England, on the subject of the kind of education proper to the agriculturist. This pamphlet we have not yet received, but the editor of the Gazette, in noticing it, thus comments on its general character:

"It seems to us that agricultural education and the education of agriculturists are two altogether different things. The former relates to the profession, the latter to the whole human nature of the individual. It is the object of the latter to place the body, intellect, and soul of man in cordial and intelligent relationship to the whole world of moral, spiritual, and material truth; it is the object of the former to teach only such applications of the truths thus conveyed as will tell upon the relationship of farmers to each other, to their landlords, their laborers, and their land.

"Agricultural education, in Mr. Ackland's pamphlet, means physics, chemistry, physiology, meteorology, the laws of heat, geology, botany, animal pathology, political economy, &c., &c.—a medley of all the sciences. It is to quicken powers of observation, to confer alert vitality and wakefulness, to create habitual thoughtfulness, to strengthen resolution, to foster religious feelings and conviction. In the words of his correspondent, whom he quotes, it seems as if he would rather forget that his pupils are to be farmers, remembering only that they are to be men. And a very great service indeed he will have rendered if his pages being generally read by agriculturists, they shall be induced by them to seek such an education for their sons as shall implant these, which are the essential elements of ultimate character, the firm foundation of ultimate position, whatever occupation or profession they may afterwards adopt as their source of maintenance and livelihood.

"Nor do we say that there is not much in these pages relating more directly to the merely professional aspect of a good agricultural education. Although the pamphlet might be as properly addressed, let us say, to the medical as to the agricultural profession, yet there is much in it of assertion, argument and advice, from which the future farmer especially may benefit. We do not purpose to-day to offer here any analysis of its pages, but content ourselves with a cordial recommendation of them to those alone of the agricultural world to whom, as we believe, they have any business to be addressed—the young farmers and agricultural students of the country."

THE KIND OF WOOL MOST IN DEMAND.

To give direction to the agricultural industry of the country, by laying before it such facts as will serve to guide the farmer, is a duty of this department. In the report for January, we referred to the fact that Canadian wool under the miscalled reciprocity treaty is admitted free of duty, and that it is combing wool, produced by the Cotswold and Leicester sheep. The necessities of the country caused by the want of cotton have occasioned a greater demand for the cheap wools than for other kinds, and the urgencies of the war have increased the demand for combing wools. These demands must continue some time yet; and as they abate, the fact that Canadian wool will not be admitted as now, will serve to keep up the demand for home-grown combing wools. The next report from this department will exhibit a great reduction in meat-producing stock, serving, by its reduction, to keep up the prices of fresh and salted meats. This fact will increase the demand for mutton, and as the Cotswold

and Leicester are excellent mutton breeds, they cannot but be a valuable stock o the farmer. This increased demand will be seen from our table of the receipts of live stock at New York, published in the last report—the number received there in 1864, showing an increase of 54 per cent. over that of 1863.

The following letter cannot but be instructive; and what it says in regard to Saxony wool will command attention. In past years, when the country was overstocked with British broadcloths, there was but a limited demand for this fine wool. Its price was 60 cents, when the finer Spanish merino sold for 55 cents. A Saxon sheep, at the best averages, did not yield more than 3½ pounds per head, whilst the Spanish produced 6 and 7 pounds. It is true, a greater number of the Saxony could be raised per acre than of the Spanish, but still the Spanish was most profitable. Hence their increase and the decrease of the Saxony. But, in future, fineness will determine the market value more than in past years, because that quality will be used here more extensively; foreign broadcloths will not so press down the sales of the fine domestic cloths as to force them from our own markets, as in past years, under the free-trade policy.

With these encouraging prospects before the American wool-grower, he cannot fail to find profit in a still further increase of his flocks.

PROVIDENCE, RHODE ISLAND,
February 13, 1865.

DEAR SIR: We return herewith your circular of December 20, 1864, with our replies to your interrogatories, and we will add a word further.

The increase in the production of wool in this country is imperatively demanded by the manufacturing interest; the increase of machinery for the manufacture of woollen goods having been so rapid in the past five years that twice the amount of wool is now consumed by it than in 1860. The increase of wool called for will apply to all grades, as none of them are fully supplied by the domestic growth. The two extremes may be regarded as most sought for at this time: the one, the fine Saxony; the other, the long combing wools.

The introduction of the fine long-wooled Merinoes has driven out and taken the place of the fine Saxony; the latter in this country being much less now than formerly, for the reason that the heavier fleeces are more profitable to the farmer. We think the Saxony wool cannot be materially increased until we approach the point of producing nearly the amount of wool consumed by the country.

The Leicestershire or combing wool is grown in the United States but to a limited extent, the worsted machinery now in operation here being supplied with this description of wool from Canada, the entire clip of which is barely sufficient to supply the machinery now in operation. This branch of the woollen manufacture is being largely increased by new mills, and by the enlargement of those already established. American wools may now be quoted at about $1 per pound for the average, whilst the coarse Canada wool, if running largely to combing, will command from $1 25 to $1 30 per pound, and have once sold this season for $1 45. With a present consumption equal to the entire clip of Canada, and but a small quantity now grown in the United States, we think this kind of wool offers more inducements to the wool-grower than any other quality. Upon the repeal of the reciprocity treaty with Canada, this wool must pay a duty of 10 cents per pound, and 10 per centum at least, and to import it from England at this time it will cost 80 cents per pound in gold, or $1 60 in currency.

Fine Saxony wool is in very small supply in the markets, and it is only

grown in western Pennsylvania, West Virginia, and in the southeastern part of Ohio. The manufacturers working this grade of wool are obliged to use fine foreign wool as a substitute for it, costing now in the grease about half the price of washed domestic—the domestic shrinking about 40 per cent., and the foreign about 65 per cent., in scouring.

Hoping that the foregoing may be of some value, we are truly yours,

TAFT, WEEDEN & CO.

Hon. ISAAC NEWTON,
Commissioner of Department of Agriculture.

HOSPITAL GARDENING.

There is no one of our readers but will be pleased with the following communication from the gardener in charge of the hospital garden at Chattanooga. And many a heart will be touched by it, for it exhibits a trait of our soldiers so purely American in its love of home, and of the flowers of home, significant of the moral beauties clustering ever around his heart, that the mother and the sister, receiving the flower-seeds he sends home, will with delight read this account of the place where they were grown.

HEADQUARTERS HOSPITAL GARDEN,
Chattanooga, Tennessee, December 29, 1864.

DEAR SIR: I presume you have heard of our garden here for the growth of vegetables for the sick and wounded of the United States army. I have taken the liberty of sending you our fiscal report, with a brief account of our proceedings, believing they will be interesting to you and the community.

The grounds comprised in the garden are cultivated by the permission of General Thomas. They embrace one hundred and fifty acres, beautifully situated on the bank of the Tennessee river, about one mile from this city. In addition to this land we have forty acres of grape vines, planted six feet square in the Catawba variety, and trained to stakes. These were planted and owned by a rebel of the name of Boyce, who went to the south upon the arrival of the Union army.

The garden and vineyard are worked by convalescent soldiers, and with horses unfit for military duty, which we received from the government. With a little exercise, and a variety of vegetable food, these men are soon able to return to their regiments, and others are received from the hospitals by order of the medical director. The enclosed list will show the variety and quantity of vegetables grown.

Gardening operations commenced in February, 1864, and teams run daily from April to the close of the season, carrying fresh vegetables to the various hospitals and headquarters, camps, &c. Many thousands of soldiers have partaken of the rich variety of our productions through the past season. By permission of General Thomas these grounds, with an addition of thirty-five acres upon Lookout mountain, are to be used next season for the same purposes, when we hope to commence earlier under more favorable circumstances, as buildings have been erected for the men, horses, vegetables, seeds, roots, implements, &c. All these have been built by our own men, when they could not be used to advantage in the garden.

Near the entrance of the grounds is an Indian mound of an oval shape, forty by eighty-four feet on the top, and about twenty feet high. Upon this mound

are the headquarters of the garden, from which two-thirds of the garden are visible, the city of Chattanooga, Raccoon mountain, Walden's and Mission ridges, and overlooking all these that monster of mountains, Lookout. The view from the top of the mound is magnificent and the admiration of all visitors, who are very numerous.

After producing a large crop of radishes, lettuce, and mustard, the surface of the mound was beautified through the season, with one hundred and eighty-eight varieties of flowers. These have awakened most pleasant remembrances of the loved ones at home in the hearts of the sick and wounded soldiers, and have been a delight to all others who have seen them. From these floral beauties seeds have been secured, of which 5,775 papers have been put up, and half of them to this time have been given to the soldiers to send to their homes, that they may find the garden and yard beautified when they return, and that they may have so pleasant a remembrance of the United States sanitary garden when the sword shall have been laid aside, and all, once more, united in peace.

In excavating a cellar for our sweet potato sets and other roots, many interesting curiosities were discovered, among which are skulls in good state of preservation, supposed to be of the race of mound builders that existed hundreds or thousands of years since. More than one hundred feet of tunnelling have been made in the mound, and this work will be continued as opportunity offers. Our works are visited with much interest by the community.

With respect, yours &c.,

THOMAS WILLS,
Gardener in charge.

COMMISSIONER OF AGRICULTURE.

The number, variety and value of vegetables issued from this garden are a follows:

	Bushels.		Dozens.
Beets	1,563	Green corn	8,963½
Mustard	1,496	Cucumbers	2,673
Lettuce	1,289	Okra	1,717
Onions	1,407	Peppers	958
Tomatoes	1,276½	Cabbage	896¾
Irish potatoes	904¾	Summer squash	400½
Radishes	715	Melons	139
Peas	442	Pumpkins	96
Bunch beans	431	Winter squash	26
Sweet potatoes	384		
Lima beans	148	Total dozens	15,949¼
Spinach	133	Total bushels	11,155¼
Miscellaneous	76	Seeds (papers)	5,775
Total bushels	11,155¼	Estimated value	$66,375 70

CALIFORNIA WINES.

The following are the imports and exports of wines at San Francisco in 1863 and 1864, taken from the Mercantile Gazette of that city:

IMPORTS.	1863.	1864.	EXPORTS.	1863.	1864.
Hogsheads	20	572	Pipes and casks	856	1,485
Pipes	21	31	Half-casks	92	96
Casks (60 gallons)	5,444	7,191	Quarter-casks	71	42
Half-casks	830	1,757	Barrels	151	147
Quarter-casks	1,600	2,534	Octaves	128	40
Barrels	72	595	Kegs	69	53
Octaves	432	1,188	Cases	8,994	9,481
Baskets	31,257	48,574	Baskets	2,235	2,614
Cases	48,640	65,217	Packages	23	317

The imports have evidently increased much more than the exports, and hence, even for California consumption, the home market invites to an increased wine production. The assurance which the act of Congress has given, by its increased duties on foreign wines, that the home market will be at the command of the home production, is infusing a greatly increased vigor in vine-planting in California. The fact, too, that it is a crop that will seldom be much injured by the occasional extreme droughts of the California climate, and that its habitual dryness during the summer is highly advantageous, will also give an additional stimulant to grape cultivation. The lesson taught by the recent drought, that thorough farming is the safest, and to be thorough it must be limited to small farms, will also aid this crop. With these motives to the full development of the great natural advantages that California has as a wine-producing country, we may anticipate such an advance as will make it the great wine country of the world; and as this advance progresses, to draw such attention as will increase correspondingly the demand for its wines.

The Gazette says: "As soon as it was known that Congress had passed the before-mentioned act [the tariff act of last session] new life was spread through the vine plantations, and millions of vines will this year be put out. The Buena Vista Vinecultural Society alone plants 700,000 vines, principally of foreign varieties. Every man in Sonora county increases his vineyard. As far as we can hear, that valley will plant at least one million vines, and we feel confident that California will this year plant no less than five million vines. How great an increase this is will be seen from the State Register of 1859. In 1856 there were planted in this State 1,540,134; in 1858, 4,054,548. The standing committee of the legislature of 1862 reports the probable amount of 200,000 vines added since then, admitting that little had been planted since 1858. The wine produced in 1864 throughout the State will not fall short of 4,000,000 gallons, and brandy about 200,000 gallons.

"As to the product of 1864, we remark that the quantity of grapes produced all through California last year fell short of expectation on account of excessive dryness. The quality of wine produced is, on the average, better than of many previous years. Up to the present date about 200 pipes of the new white and red wines have been shipped from the southern counties to this market, and find ready sale at 35 to 50 cents per gallon."

Every country should conform its general crops to the peculiar climate it has. Occasional and very limited ones may be grown where peculiar causes may render them profitable. Thus the grape in the western States, except in certain localities, where the general climate and soil do not exist, could never be made a general crop, because its moisture and richness induce diseases which

must make the crop unprofitable. But the California climate and soil are peculiarly adapted to the growth of the grape, whose leaf exhales but half the amount of sap that is evaporated by an equal surface of the apple leaf. This physiological fact points to the dry trade-wind climate as that intended for the grape; and hence, as a general crop, California may confide in the fitness of the grape for its climate; and on that fitness it may as confidently rely for ultimate success in making for its wines a commercial demand equal to its production.

THE PROFITS OF INDUSTRY.

The following table of statistics, exhibiting the mercantile, manufacturing, and trading wealth of the States embraced in it, we find published in Hunt's Merchants' Magazine, and is prepared by R. G. Dunn & Co., at the mercantile agency office, New York. This table is a most interesting one, especially at this time, because it furnishes so much statistical matter, through which may be read the influence of the war on the manufacturing and commercial progress of the country. It is a matter of regret that the table did not separate from each other the business houses and wealth of each of the pursuits named—the mercantile, manufacturing, and trading. The statistics pertaining to the business of the carrying trade on our great lines of railway and lake navigation are given by the Treasury Department, and now all that is wanted is a like estimate of the wealth and profits of the agriculturists, in order to have before us the data upon which to base estimates of the relative profits of capital and labor invested in each of the great industrial pursuits of our country. As the plan of gathering statistics of the crops, adopted by this department, is as applicable to the obtaining of those relating to the capital invested in agriculture, we will endeavor to procure the amount of this capital. Referring to the importance of the statistics they give, R. G. Dunn & Co. say:

"The deep interest we have felt in arriving at correct statistics, to submit to the judgment of our subscribers, has induced us to make the most rigid and careful research of our records, at this particular juncture, in order to present to them at a glance an estimate of the wealth of the mercantile, manufacturing, and trading interests in the loyal States. This estimate is not obtained by averaging the whole number of traders, but by a specific examination of each name or firm. It has been the work of months, both with us and our associate officers throughout the country, and the result is shown in the appended table, arranged by States and the principal cities. The States of Missouri, Kentucky, Louisiana, and Kansas having been made the theatre of war, thereby disorganizing trade, are consequently not fully represented in this estimate; and California, as it will be observed, is entirely omitted. Still, without them, the aggregate shows 168,925 business houses, representing a wealth of $4,944,766,000, mostly invested in personal property. It is generally conceded that the average profits of trade range from twelve to fifteen per cent.; but assuming the low figures of ten per cent., we have $494,476,000 as the accrued gain the past year on the business interests spoken of. This, in view of the unprecedented expenditure necessarily incurred, both by heavy taxation and in otherwise sustaining the government, exhibits the self-supporting character of our people, and but one element of the strength of the country, which, when added to the other immense resources not brought into our estimate, such as real estate, agricultural, mining, and other interests, should inspire the most hopeful confidence in our future growth and permanent prosperity.

Mercantile, manufacturing, and trading wealth and profits for 1864.

Connecticut	5,832	$145,588,000
Delaware	1,150	24,701,000
District of Columbia	1,282	17,448,000
Illinois	12,215	207,508,000
Indiana	8,512	134,240,000
Iowa	5,052	38,532,000
Kansas*	438	3,357,000
Kentucky*	1,528	39,559,000
Louisiana,* (New Orleans, only)	802	50,794,000
Maine	4,982	99,293,000
Maryland	3,665	102,359,000
Massachusetts	17,302	868,815,000
Michigan	5,934	83,943,000
Missouri*	3,263	81,334,000
Minnesota	979	7,602,000
New Hampshire	2,851	38,685,000
New Jersey	5,910	90,250,000
New York	36,932	1,677,204,000
Ohio	17,005	310,725,000
Pennsylvania	22,941	733,296,000
Rhode Island	2,487	115,704,000
Vermont	2,494	19,989,000
Wisconsin	5,369	53,775,000
Total	168,925	4,944,766,000

WINTER WHEAT AND SPRING WHEAT.

The annexed letter to the Commissioner of Agriculture raises the question, What is the essential difference between winter and spring wheat? We now know that one must be sown in the fall, the other in the spring, for a reverse sowing would cause the spring wheat to be killed, and the winter wheat not to ripen timely its grain, and to yield but a light crop if ripened. Still the one can, by gradual changes, be turned into the other. Hence there is no radical difference between them. The difference, as we can now see it, appears to be climatic only.

Individuals have sometimes sown winter wheat so late in the season that the seed did not exhibit any surface growth until February; yet with a favorable season it has produced a good crop. Whether this, like the experiment stated in the letter, is an accidental result, or that sprouting the seed and exposure to cold so hastens the change of the elements of the seed that the growing plant derives a nutritious support so rapidly as not to require an earlier sowing, are questions about which many conjectures might be made, but the

* These States, in consequence of the disorganized state of trade caused by the rebellion are not fully represented.

safer and more proper course is to have the *facts* made out first, so that the *fact* being first clearly established, the *causes* may then be investigated, and the benefit of the knowledge of them be made available to increase the wheat crops. We would urge, therefore, our farmers to experiments like that given in the letter. If the result stated in it is found not to be accidental, but in conformity to the nature of the growth of the wheat plant, it will readily be seen to how many useful purposes it could be applied. The casualties arising, from freezing *in* and *out*, to the crop of winter wheat, are great, but these could be met by cross-drilling, in the spring, winter wheat prepared after the manner suggested in the letter. Or, in districts where spring wheat will not yield a profitable return, a portion of the crop might be left unsown until spring, and then put in with the prepared seed, and in this manner avoid the casualties of winter. But here is the letter:

MANTORVILLE, *Dodge Co., Minnesota.*

DEAR SIR: The wheat which I obtained from the Department of Agriculture, known as the bald Mediterranean, came to hand some time during the month of February, 1864. It being too late in the season to sow it, being winter wheat, and wishing to determine its value as soon as possible, the thought occurred to me that by sprouting it, and subjecting it to the action of frost for a length of time, I might possibly succeed in raising a partial crop, at least, that season. My expectations were more than realized, as the product was at the rate of forty bushels and three quarts per acre. The experiment is as follows:

I took a little more than one-half of the package, which contained about one quart, reserving the rest for a second trial the coming fall, in case of a failure in the experiment, and placing it in a dish, I poured warm water upon it until the wheat was covered a half inch in depth. In this it remained until the greater part of the water was absorbed, when it was removed from the dish and put into a small bag and placed in a hot-bed frame on top of the soil. Here it remained thirty-six hours, when it was examined and found to be sufficiently sprouted; the root sprouts being from one to one and a half inches in length, and the stem or leaf sprout from one-fourth to one-half an inch in length. I would here remark that my thermometer had been accidentally broken a short time previous to the commencement of the experiment, and that I was without the means of determining the exact number of degrees of heat or cold that was employed throughout the experiment, but each person can probably form an opinion near enough for all practical purposes. The water that was used to soak the wheat in contained about 120 degrees of heat, (Fahrenheit.) The number of degrees of heat within the hot-bed frame was about sixty. After the wheat was sprouted, as before stated, it was removed from the hotbed and placed upon and slightly covered with snow, where it remained four days, the mercury in that time, as I was informed, sinking as low as zero. It was then placed again in a hotbed frame, where it remained about twelve hours, when it was examined and found to be uninjured. It was then placed on top of the snow, where it was left ten days, the weather being warm enough to thaw in the middle of the day, most of the time, and during the last four days all of the time. While there the wheat was frequently turned in order to keep it moist throughout.

When it was sowed the sprouts seemed to be about in the same condition that they were in when first removed from the hotbed. The wheat was sown broadcast on land that had been ploughed in the month of September, previously. The soil had been covered formerly by a hazel thicket, on the edge

of the prairie, and was rich in vegetable mould. The land was ploughed about ten inches deep, and dragged three times before, and the same number of times after sowing.

I did not discover any difference in the appearance of the wheat after it came up from what it would probably have presented had it been sown in the fall, except that it did not tiller on the stool quite as much, but this I thought was attributable to the very great dryness of the season. The growth was vigorous and healthy throughout, as much so as wheat sown in the fall that had wintered well. It exhibited no signs of disease whatever, and the heads were long and well filled. The product was harvested about one week before my spring wheat that was sown three days after it. There was no other winter wheat raised in the vicinity, so that I am unable to say what the difference would have been in the time of ripening between it and the same, or any other kind of fall wheat sown in the fall. The date of sowing I have not got, but I think it was in the last week of March, or the first week in April. It was as soon as the ground would permit it.

The experiment has demonstrated, to my mind, that fall wheat can be successfully grown by sowing in the spring, and in all probability as large a crop can be raised as by fall sowing, at least in this climate, in a majority of instances, without the risk of winter-killing, though these facts were not sought after when the experiment was commenced. I regret that in sowing all the seed last September, I did not re-sow a portion of it to repeat the experiment and compare the results with that sown in the fall. That sown in the fall was looking finely when I last saw it.

Yours, very respectfully,

C. R. HOAG.

ISAAC NEWTON, *Commissioner.*

TOBACCO PRODUCTION ON THE CONNECTICUT RIVER.

The department has furnished for this spring's planting a large quantity of the Connecticut seed leaf tobacco. It is not only an excellent variety, but is very productive, and well adapted to the colder latitudes of our country. For the purpose of showing how productive it is when planted in a suitable soil and cultivated properly, we publish the following statements sent to the department by a correspondent:

"Samuel S. Smith, of Poquonock, Hartford county, Connecticut, raised last season, from two and three-fourth acres of land, 6,461 pounds of tobacco, being 2,350 pounds to the acre.

"O. H. Seymour, of the same county, raised on seven-eighths of an acre 2,323 pounds of first-class tobacco, which is at the rate of 2,613 pounds per acre.

"Thaddeus Smith, of Hadley, Massachusetts, raised twenty-four tons on twen-two acres, being 2,181 pounds per acre."

WILL CONGRESS TAX TOBACCO LEAF?

To this question we may now give an answer in the *negative*, and we are sure that the information it conveys will be hailed with joy by the growers of tobacco. No class of men are more ready to contribute to the support of government than they, but any tax on the leaf must so evidently destroy the export of it—amounting in past years to twenty millions of dollars—that the tax itself would have resulted in an evil of so much greater magnitude to the country than benefit to the government, that the well-being of the country demanded its exemption from the proposed tax. This was shown clearly a year ago by

this department. The bills to tax it, introduced into the House of Representatives, were best condemned by themselves. But apart from their obvious import, the principles of the entire internal revenue system are now undergoing careful consideration, and we trust that they will be so changed as to keep out any tax induced more by speculative interest than the general welfare.

It may be regarded as a general rule, subject, however, to modifications by the law of supply and demand, that the consumer will have to pay the tax, with such profit on it as will reimburse the various payers of it. The further, therefore, the tax is levied from the consumer, the more onerous it will be to him. Many cases might be adduced to show that where the government has received a dollar of internal revenue, the consumer has had to pay two dollars. A system of this kind is wrongfully oppressive, because unnecessarily so, and hence, taxes on the raw material of a manufacture, or on its different processes of the manufacture, ought to be avoided if possible, and made to bear directly on the consumer. How far it may be advisable to avoid every tax on *business* and place it on the *results* of business, is a question that will, doubtless, soon receive a thorough investigation. Seeing that as the internal revenue system must be in existence for many years, its operation upon all practicable bases should be well considered. The selection of so many specified articles for taxation engenders business rivalry, and creates speculative hope and projects, as well as multiplies greatly the expenses of collection.

Table No. 1.

Showing the amount in bushels, &c., of each principal crop of the several States named, the yield per acre, the total acreage, the average price in each State, and the value of each crop, for 1864.

Products.	Amount of crop of 1864.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
MAINE.					
Indian corn.....bushels..	1,410,017	27	52,223	$2 10	$2,961,036
Wheat..... " ..	167,194	10 5/11	15,999	2 60	434,704
Rye..... " ..	128,612	12	10,718	2 04½	263,012
Oats..... " ..	2,102,994	22	95,591	1 01	2,124,024
Barley..... " ..	668,424	18	37,135	1 45	970,215
Buckwheat..... " ..	350,837	19	18,465	1 28	449,071
Potatoes..... " ..	7,189,151	143	50,274	67	4,816,731
Tobacco..... ....pounds ..					
Hay.....tons	1,085,705	¾	1,240,806	21 00	22,799,805
Total.....			1,521,211		34,818,598
NEW HAMPSHIRE.					
Indian corn.....bushels..	1,334,628	29½	45,242	2 11	2,816,065
Wheat..... " ..	251,518	12½	20,121	2 68	674,068
Rye..... " ..	109,373	14½	7,543	2 04	223,121
Oats..... " ..	1,095,891	24	45,662	92	1,008,220
Barley..... " ..	96,278	18	5,349	1 69	162,710
Buckwheat..... " ..	87,447	19⅙	4,564	1 32	115,430
Potatoes..... .... " ..	3,842,154	164	23,427	60	2,305,292
Tobacco..... ....pounds ..	64,000	985	65	25	16,000
Hay.....tons.....	694,161	1	694,161	21 00	14,577,381
Total.....			846,134		21,898,287
VERMONT.					
Indian corn.....bushels..	1,585,020	38⅘	40,851	1 96	3,106,639
Wheat..... " ..	497,951	14	35,568	2 57½	1,282,224
Rye..... " ..	140,798	15⅕	9,263	1 88	264,700
Oats..... " ..	3,611,938	33	109,452	87	3,142,386
Barley..... " ..	94,102	22	4,277	1 61	151,504
Buckwheat..... " ..	210,516	19⅗	10,954	1 04	218,937
Potatoes..... " ..	5,920,810	162½	36,434	54	3,197,237
Tobacco.....pounds..	59,000				
Hay.....tons.....	850,127	1	850,127	17 95	15,259,780
Total.....			1,096,926		26,623,407
MASSACHUSETTS.					
Indian corn.....bushels..	2,280,324	31½	72,319	2 04	4,651,861
Wheat..... " ..	128,143	16	8,009	2 41	308,825
Rye..... " ..	413,957	15	27,597	2 00	827,914
Oats..... " ..	1,194,827	26 3/10	45,430	1 04	1,242,620
Barley..... " ..	149,584	20	7,479	1 78	266,260
Buckwheat..... " ..	110,972	16¼	6,829	1 25	138,715
Potatoes..... .... " ..	3,384,878	132½	25,546	93	3,147,937
Tobacco.....pounds..	6,760,000	1,650	4,097	25	1,690,000
Hay..... .....tons	760,517	1	760,517	29 00	22,054,993
Total.....			957,823		34,329,125

Table showing the amount in bushels, &c.—Continued.

Products.	Amount of crop of 1864.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
RHODE ISLAND.					
Indian corn.....bushels..	474,208	30¼	15,676	$2 09	$991,095
Wheat..... " ..	1,413	15	94	2 50	3,532
Rye..... " ..	37,302	17	2,194	2 00	74,604
Oats..... " ..	182,873	33	5,542	98¾	180,587
Barley..... " ..	41,506	25	1,660	1 64	68,070
Buckwheat..... " ..	3,097	.....	.....	.....	.....
Potatoes..... " ..	525,727	127½	4,123	97½	512,584
Tobacco.....pounds..	1,848	1,350	1 37/100	30	545
Hay.....tons.....	62,044	1	62,044	31 50	1,954,386
Total.....	.....	.....	91,334 37/100	.....	3,785,403
CONNECTICUT.					
Indian corn.....bushels..	2,059,835	31	66,446	1 81	3,728,301
Wheat..... " ..	71,881	16½	4,356	2 37½	170,717
Rye..... " ..	721,889	15	48,126	1 91	1,378,808
Oats..... " ..	2,011,334	30	67,044	1 00	2,011,334
Barley..... " ..	18,732	23½	797	1 81	33,905
Buckwheat..... " ..	387,477	16⅔	23,342	1 35	523,094
Potatoes..... " ..	1,833,148	131	13,993	83	1,521,513
Tobacco.....pounds..	9,900,218	1,450	6,828	25	2,475,054
Hay.....tons.....	449,956	1⅕	374,963	27 00	12,148,812
Total.....	.....	.....	605,895	.....	23,991,538
NEW YORK.					
Indian corn.....bushels..	22,628,862	29⅓	771,526	1 68	38,016,488
Wheat..... " ..	10,918,615	13	839,893	2 34⅔	25,622,350
Rye..... " ..	5,205,759	14½	359,018	1 70½	8,875,819
Oats..... " ..	35,724,746	23	1,553,250	94	33,581,261
Barley..... " ..	3,710,911	18¾	197,915	1 74⅓	6,469,355
Buckwheat..... " ..	5,677,490	18½	313,488	1 13⅔	6,453,414
Potatoes..... " ..	29,753,312	115⅓	257,984	66	19,637,186
Tobacco.....pounds..	12,912,662	856	15,085	24⅞	3,212,025
Hay.....tons.....	3,921,264	1 9/19	3,547,810	23 05	90,385,135
Total.....	.....	.....	7,855,969	.....	232,253,033
NEW JERSEY.					
Indian corn.....bushels..	8,464,262	31⅔	267,349	1 70½	14,401,337
Wheat..... " ..	1,582,113	15	105,474	2 33	3,686,323
Rye..... " ..	1,424,523	13½	105,520	1 69½	2,414,566
Oats..... " ..	5,735,647	32½	176,481	91⅐	5,227,640
Barley..... " ..	29,098	20	1,454	1 78½	51,940
Buckwheat..... " ..	921,256	17	54,191	1 44	1,326,609
Potatoes..... " ..	3,989,179	86⅔	46,033	1 08	4,308,313
Tobacco.....pounds..	179,755	.....	.....	25	44,939
Hay.....tons.....	436,496	1¼	277,770	26 71½	11,660,991
Total.....	.....	.....	1,034,272	.....	43,122,658

Table showing the amount in bushels, &c.—Continued.

Products.	Amount of crop of 1864.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
PENNSYLVANIA.					
Indian corn ..... bushels..	28,381,685	29½	962,091	$1 54¾	$43,920,658
Wheat ..... " ..	12,523,404	12	1,043,617	2 40	30,056,170
Rye ..... " ..	6,843,427	14½	480,240	1 70⅙	11,645,232
Oats ..... " ..	37,657,329	29¼	1,287,430	87	32,761,876
Barley ..... " ..	630,491	18	35,027	1 71	1,078,140
Buckwheat ..... " ..	7,577,955	18¾	404,157	1 16¾	8,847,262
Potatoes ..... " ..	12,661,424	110⅓	114,759	89	11,268,667
Tobacco ..... pounds ..	6,124,551	1,068½	5,732	18½	1,133,042
Hay ..... tons.....	1,796,336	1⅗	1,381,797	24 55	44,100,049
Total	.....	.....	5,714,850	.....	184,811,096
MARYLAND.					
Indian corn ..... bushels..	10,509,243	21½	488,802	1 62	17,024,974
Wheat ..... " ..	6,487,946	11½	564,178	2 60	16,868,660
Rye ..... " ..	529,744	14	37,838	1 64	868,780
Oats ..... " ..	5,429,894	22	246,813	87	4,724,008
Barley ..... " ..	26,591	26⅔	997	1 78⅔	47,509
Buckwheat ..... " ..	189,285	19⅖	9,657	1 58	299,070
Potatoes ..... " ..	1,061,994	55	19,309	1 20	1,274,393
Tobacco ..... pounds ..	33,292,968	750	44,391	13⅜	4,550,039
Hay ..... tons.....	167,909	1⅛	125,931	27 00	4,533,543
Total	.....	.....	1,537,916	.....	50,190,976
DELAWARE.					
Indian corn ..... bushels..	3,892,337	20⅓	191,458	1 55	6,033,122
Wheat ..... " ..	1,054,954	12	87,912	2 53	2,668,834
Rye ..... " ..	41,153	15⅝	2,627	1 56⅜	64,473
Oats ..... " ..	1,184,437	24	49,351	80	947,550
Barley ..... " ..	4,595	27	170	1 87½	8,616
Buckwheat ..... " ..	15,641	20	782	1 00	15,641
Potatoes ..... " ..	327,540	125	2,620	1 32	432,353
Tobacco ..... pounds ..	14,057	.....	.....	.....	.....
Hay ..... tons.....	33,111	1½	22,074	30 00	993,330
Total	.....	.....	311,994	.....	11,163,919
KENTUCKY.					
Indian corn ..... bushels..	42,828,706	28⅓	1,502,761	96⅔	41,399,749
Wheat ..... " ..	3,882,275	10¼	378,758	1 96½	7,628,670
Rye ..... " ..	554,014	13⅖	41,344	1 35½	750,689
Oats ..... " ..	4,346,326	24¼	179,229	79¼	3,444,463
Barley ..... " ..	256,713	23⅓	11,003	1 59⅙	408,602
Buckwheat ..... " ..	14,187	20⅓	698	1 37½	19,507
Potatoes ..... " ..	1,255,921	81⅙	15,474	1 09⅜	1,377,327
Tobacco ..... pounds ..	56,956,469	770	73,969½	12	6,834,776
Hay ..... tons.....	112,325	1⅛	84,243	20 16	2,264,472
Total	.....	.....	2,287,479	.....	64,128,255

Tab'e showing the amount in bushels, &c.—Continued.

Products.	Amount of crop of 1864.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
OHIO.					
Indian corn ..... bushels..	68,202,641	31⅓	2,176,911	$0 96	$65,474,535
Wheat ..... " ..	20,407,503	10¼	1,990,976	1 93	39,386,481
Rye ..... " ..	704,974	12¼	57,548	1 32⅕	931,741
Oats ..... " ..	14,428,833	29	497,546	72⅕	10,417,617
Barley ..... " ..	1,585,630	23⅝	67,016	1 56	2,473,583
Buckwheat ..... " ..	1,300,141	17	76,479	1 10	1,430,155
Potatoes ..... " ..	4,615,881	96	48,082	91¼	4,211,991
Tobacco ..... pounds ..	29,017,931	870½	33,335	13½	3,917,421
Hay ..... tons	1,415,096	1⅛	1,061,322	19 38	27,424,560
Total	.....	.....	6,009,215	.....	145,668,084
MICHIGAN.					
Indian corn ..... bushels..	11,088,801	24⅓	455,766	1 26	13,971,889
Wheat ..... " ..	13,966,153	12	1,163,846	1 96	27,373,660
Rye ..... " ..	434,894	12¼	35,419	1 36½	592,905
Oats ..... " ..	4,810,136	26	185,005	75¾	3,643,678
Barley ..... " ..	338,388	19⅕	17,624	1 56	527,885
Buckwheat ..... " ..	823,453	12	68,620	1 18½	975,792
Potatoes ..... " ..	3,422,078	79	43,317	81½	2,788,994
Tobacco ..... pounds ..	248,473	1,000	248	20	49,695
Hay ..... tons	847,737	1⅕	762,963	19 33	16,386,756
Total	.....	.....	2,732,808	.....	66,311,254
INDIANA.					
Indian corn ..... bushels..	74,284,363	29	2,561,529	95½	70,941,567
Wheat ..... " ..	22,321,376	14	1,594,384	1 75	39,062,308
Rye ..... " ..	397,632	14	28,402	1 31	520,898
Oats ..... " ..	6,084,793	26	234,030	73⅗	4,478,408
Barley ..... " ..	339,198	24	14,133	1 56	529,149
Buckwheat ..... " ..	272,171	18½	14,712	1 24⅛	338,399
Potatoes ..... " ..	2,904,847	80	36,310	99½	2,890,323
Tobacco ..... pounds ..	8,767,065	856	10,241	14	1,227,389
Hay ..... tons	962,805	1½	641,870	17 81	17,147,557
Total	.....	.....	5,135,611	.....	137,135,998
ILLINOIS.					
Indian corn ..... bushels..	138,356,135	33	4,192,610	75	103,767,101
Wheat ..... " ..	33,371,173	14⅛	2,328,763	1 55	51,725,318
Rye ..... " ..	850,071	15	56,671	1 01½	862,822
Oats ..... " ..	24,273,751	31⅙	779,003	61	14,806,988
Barley ..... " ..	1,144,790	22⅜	50,520	1 37	1,568,362
Buckwheat ..... " ..	280,370	17	16,492	1 10	308,407
Potatoes ..... " ..	4,511,083	81½	55,521	1 15	5,187,745
Tobacco ..... pounds ..	18,867,722	907	20,802	16⅐	3,045,789
Hay ..... tons	2,166,725	1½	1,444,483	15 33	33,215,894
Total	.....	.....	8,944,865	.....	214,488,426

Table showing the amount in bushels, &c.—Cont nued.

Products.	Amount of crop of 1864.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
MISSOURI.					
Indian corn ....bushels..	36,635,011	26⅘	1,366,978	$0 97	$35,535,961
Wheat..... " ..	3,281,514	14⅕	231,092	1 75	5,742,648
Rye..... " ..	237,542	15⅜	15,168	1 11⅛	264,463
Oats..... " ..	2,128,522	25¼	84,297	71½	1,521,893
Barley..... " ..	162,809	23	7,078	1 47⅜	240,415
Buckwheat..... " ..	72,461	15⅝	4,615	1 07	77,533
Potatoes..... " ..	776,630	39	19,913	1 75⅛	1,361,691
Tobacco.....pounds ..	13,697,063	562	24,372	13¾	1,009,257
Hay.....tons.....	399,599	1¾	279,719	18 12½	7,242,731
Total.....	.....	.....	2,033,232	.....	52,996,592
WISCONSIN.					
Indian corn.....bushels..	10,087,053	31	325,388	94	9,481,829
Wheat..... " ..	14,168,317	9½	1,491,401	1 48⅛	21,016,337
Rye..... " ..	810,343	12¼	66,150	1 09⅙	884,624
Oats..... " ..	12,043,538	27½	437,945	60	7,226,123
Barley..... " ..	674,919	13¼	50,937	1 49	1,005,629
Buckwheat..... " ..	73,258	16½	4,440	88¾	65,016
Potatoes..... " ..	3,582,068	118	30,356	55	1,970,137
Tobacco.....pounds ..	148,083	980	151	15	22,212
Hay.....tons.....	789,765	1⅐	691,044⅜	13 00	10,266,945
Total.....	.....	.....	3,097,812⅜	.....	51,938,852
IOWA.					
Indian corn.....bushels..	55,261,240	36⅜	1,507,124	67⅝	37,370,414
Wheat..... " ..	12,649,807	12¼	1,032,637	1 34½	17,013,990
Rye..... " ..	119,333	15	7,955	92	109,786
Oats..... " ..	9,313,369	32	291,042	53	4,936,086
Barley..... " ..	584,446	21	27,830	1 20¼	702,796
Buckwheat..... " ..	276,524	17½	15,800	1 14	315,237
Potatoes..... " ..	2,520,481	76	33,164	1 11⅛	2,806,136
Tobacco.....pounds ..	390,522	957	408	25	97,630
Hay.....tons.....	814,764	1⅝	501,394	9 51	7,748,406
Total.....	.....	.....	3,417,354	.....	71,100,481
MINNESOTA.					
Indian corn.....bushels..	4,647,329	33	140,828	94	4,368,485
Wheat..... " ..	2,634,975	13⅛	197,672	1 13⅜	2,995,088
Rye..... " ..	161,974	14⅛	11,303	92	149,016
Oats..... " ..	2,259,232	28¾	78,582	73½	1,660,536
Barley..... " ..	148,592	20	1,429	1 09⅙	163,212
Buckwheat..... " ..	31,714	17⅜	1,796	1 23⅛	39,114
Potatoes..... " ..	2,163,141	112	19,313	67⅐	1,452,395
Tobacco.....pounds ..	34,659	800	43⅕	20	6,932
Hay.....tons.....	249,289	1½	166,192	9 36	2,333,345
Total.....	.....	.....	617,158	.....	13,168,123

Table showing the amount in bushels, &c.—Continued.

Products.	Amount of crop of 1864.	Average yield per acre.	Number of acres in each crop.	Value per bushel or pound.	Total valuation.
KANSAS.					
Indian corn ....bushels..	4,673,081	25	186,923	$1 37	$6,402,121
Wheat..... " ..	201,598	15	13,439	2 01	405,212
Rye ..... " ..	4,061	17	239	1 25	5,076
Oats ..... " ..	146,500	29	5,051	96½	141,372
Barley ..... " ..	5,901	23	256	1 27	7,494
Buckwheat ..... " ..	24,288	15	1,619	1 25	30,360
Potatoes ..... " ..	184,480	43	4,290	2 68	494,406
Tobacco .....pounds ..	22,043	675	32⅝	11¼	2,480
Hay .....tons.....	82,569	1⅞	49,541	13 00	1,073,397
Total.....	.....	.....	261,390⅝	.....	8,561,918
NEBRASKA TERRITORY.					
Indian corn .....bushels..	1,366,622	28½	47,951	99	1,352,956
Wheat..... " ..	126,000	14	9,000	1 50	189,000
Rye ..... " ..	1,600	16	100	1 29	2,064
Oats ..... " ..	223,284	28	7,974	68⅓	152,577
Barley..... " ..	4,630	20	231	1 22½	5,672
Buckwheat ..... " ..	.....	.....	.....	.....	.....
Potatoes ..... " ..	106,102	51⅜	2,053¾	2 08	220,692
Tobacco .....pounds ..	1,140	.....	.....	.....	.....
Hay ....tons.....	18,391	1⅛	13,793	7 33	134,806
Total.....	.....	.....	81,102	.....	2,057,767

TABLE No. 2.—*Summary for each State, showing the amount, the number of acres, and the value of each crop for* 1864.

States.	Indian corn.		
	Bushels.	*Acres.*	*Value of crop.*
Maine.....	1,410,017	52,223	$2,961,036
New Hampshire.....	1,334,628	45,242	2,816,065
Vermont.....	1,585,020	40,851	3,106,639
Massachusetts	2,280,324	72,319	4,651,861
Rhode Island	474,208	15,676	991,095
Connecticut.....	2,059,835	66,446	3,728,301
New York	22,628,862	771,526	38,016,488
New Jersey.....	8,464,262	267,349	14,401,337
Pennsylvania	28,381,685	962,091	43,920,658
Maryland.....	10,509,243	488,802	17,024,974
Delaware	3,892,337	191,458	6,033,122
Kentucky	42,825,706	1,502,761	41,399,749
Ohio	68,202,641	2,176,911	65,474,535
Michigan.....	11,088,801	455,766	13,971,889
Indiana	74,284,363	2,561,529	70,941,567
Illinois	138,356,135	4,192,610	103,767,101
Missouri.....	36,635,011	1,366,978	35,535,961
Wisconsin.....	10,087,053	325,388	9,481,829
Iowa.....	55,261,240	1,507,124	37,370,414
Minnesota	4,647,329	140,828	4,368,485
Kansas.....	4,673,081	186,923	6,402,121
NebraskaTerritory.....	1,366,622	47,951	1,352,956
Total.....	530,451,403	17,438,752	527,718,183

Summary for each State, &c.—Continued.

States.	Wheat.		
	Bushels.	*Acres.*	*Value of crop.*
Maine	167,194	15,999	$434,704
New Hampshire	251,518	20,121	674,068
Vermont	497,951	35,568	1,282,224
Massachusetts	128,143	8,009	308,825
Rhode Island	1,413	94	3,532
Connecticut	71,881	4,356	170,717
New York	10,918,615	839,893	25,622,350
New Jersey	1,582,113	105,474	3,686,323
Pennsylvania	12,523,404	1,043,617	30,056,170
Maryland	6,487,946	564,178	16,868,660
Delaware	1,054,954	87,912	2,668,834
Kentucky	3,882,275	378,758	7,628,670
Ohio	20,407,503	1,990,976	39,386,481
Michigan	13,966,153	1,163,846	27,373,660
Indiana	22,321,376	1,594,384	39,062,308
Illinois	33,371,173	2,328,763	51,725,318
Missouri	3,281,514	231,092	5,742,648
Wisconsin	14,168,317	1,491,401	21,016,337
Iowa	12,649,807	1,032,637	17,013,990
Minnesota	2,634,975	197,672	2,995,088
Kansas	201,598	13,439	405,212
Nebraska Territory	126,000	9,000	189,000
Total	160,695,823	13,158,089	294,315,119

States.	Rye.		
	Bushels.	*Acres.*	*Value of crop.*
Maine	128,612	10,718	$263,012
New Hampshire	109,373	7,543	223,121
Vermont	140,798	9,263	264,700
Massachusetts	413,957	27,597	827,914
Rhode Island	37,302	2,194	74,604
Connecticut	721,889	48,126	1,378,808
New York	5,205,759	359,018	8,875,819
New Jersey	1,424,523	105,520	2,414,566
Pennsylvania	6,843,427	480,240	11,645,232
Maryland	529,744	37,838	863,780
Delaware	41,153	2,627	64,473
Kentucky	554,014	41,344	750,689
Ohio	704,974	57,548	931,741
Michigan	434,894	35,419	592,905
Indiana	397,632	28,402	520,898
Illinois	850,071	56,671	862,822
Missouri	237,542	15,168	264,463
Wisconsin	810,343	66,150	884,624
Iowa	119,333	7,955	109,786
Minnesota	161,974	11,303	149,016
Kansas	4,061	239	5,076
Nebraska Territory	1,600	100	2,064
Total	19,872,975	1,410,983	31,975,013

Summary for each State, &c.—Continued.

States.	Oats.		
	Bushels.	*Acres.*	*Value of crop.*
Maine	2,102,994	95,591	$2,124,024
New Hampshire	1,095,891	45,662	1,008,220
Vermont	3,611,938	109,452	3,142,386
Massachusetts	1,194,827	45,430	1,242,620
Rhode Island	182,873	5,542	180,587
Connecticut	2,011,334	67,044	2,011,334
New York	35,724,746	1,553,250	33,581,261
New Jersey	5,735,647	176,481	5,227,640
Pennsylvania	37,657,329	1,287,430	32,761,876
Maryland	5,429,894	246,813	4,724,008
Delaware	1,184,437	49,351	947,550
Kentucky	4,346,326	179,229	3,444,463
Ohio	14,428,833	497,546	10,417,617
Michigan	4,810,136	185,005	3,643,678
Indiana	6,084,793	234,030	4,478,408
Illinois	24,273,751	779,003	14,806,988
Missouri	2,128,522	84,297	1,521,893
Wisconsin	12,043,538	437,945	7,226,123
Iowa	9,313,369	291,042	4,936,086
Minnesota	2,259,232	78,582	1,660,536
Kansas	146,500	5,051	141,372
Nebraska Territory	223,284	7,974	152,577
Total	175,990,194	6,461,750	139,381,247

States.	Barley.		
	Bushels.	*Acres.*	*Value of crop.*
Maine	668,424	37,135	$970,215
New Hampshire	96,278	5,349	162,710
Vermont	94,102	4,277	151,504
Massachusetts	149,584	7,479	266,260
Rhode Island	41,506	1,660	68,070
Connecticut	18,732	797	33,905
New York	3,710,911	197,915	6,469,355
New Jersey	29,098	1,454	51,940
Pennsylvania	630,491	35,027	1,078,140
Maryland	26,591	997	47,509
Delaware	4,595	170	8,616
Kentucky	256,713	11,003	408,602
Ohio	1,585,630	67,016	2,473,583
Michigan	338,388	17,624	527,885
Indiana	339,198	14,133	529,149
Illinois	1,144,790	50,520	1,568,362
Missouri	162,809	7,078	240,415
Wisconsin	674,919	50,937	1,005,629
Iowa	584,446	27,830	702,796
Minnesota	148,592	1,429	163,212
Kansas	5,901	256	7,494
Nebraska Territory	4,630	231	5,672
Total	10,716,328	540,317	16,941,023

Summary for each State, &c.—Continued.

States.	Buckwheat.		
	Bushels.	*Acres.*	*Value of crop.*
Maine	350,837	18,465	$449,071
New Hampshire	87,447	4,564	115,430
Vermont	210,516	10,954	218,937
Massachusetts	110,972	6,829	138,715
Rhode Island	3,097	----	----
Connecticut	387,477	23,342	523,094
New York	5,677,490	313,488	6,453,414
New Jersey	921,256	54,191	1,326,609
Pennsylvania	7,577,955	404,157	8,847,262
Maryland	189,285	9,657	299,070
Delaware	15,641	782	15,641
Kentucky	14,187	698	19,507
Ohio	1,300,141	76,479	1,430,155
Michigan	823,453	68,620	975,792
Indiana	272,171	14,712	338,399
Illinois	280,370	16,492	308,407
Missouri	72,461	4,615	77,533
Wisconsin	73,258	4,440	65,016
Iowa	276,524	15,800	315,237
Minnesota	31,714	1,796	39,114
Kansas	24,288	1,619	30,360
Nebraska Territory	----	----	----
Total	18,700,540	1,051,700	21,986,763

States.	Potatoes.		
	Bushels.	*Acres.*	*Value of crop.*
Maine	7,189,151	50,274	$4,816,731
New Hampshire	3,842,154	23,427	2,305,292
Vermont	5,920,810	36,434	3,197,237
Massachusetts	3,384,878	25,546	3,147,937
Rhode Island	525,727	4,123	512,584
Connecticut	1,833,148	13,993	1,521,513
New York	29,753,312	257,984	19,637,186
New Jersey	3,989,179	46,033	4,308,313
Pennsylvania	12,661,424	114,759	11,268,667
Maryland	1,061,994	19,309	1,274,393
Delaware	327,540	2,620	432,353
Kentucky	1,255,921	15,474	1,377,327
Ohio	4,615,881	48,082	4,211,991
Michigan	3,422,078	43,317	2,788,994
Indiana	2,904,847	36,310	2,890,323
Illinois	4,511,083	55,521	5,187,745
Missouri	776,630	19,913	1,361,691
Wisconsin	3,582,068	30,356	1,970,137
Iowa	2,520,481	33,164	2,806,136
Minnesota	2,163,141	19,313	1,452,395
Kansas	184,480	4,290	494,406
Nebraska Territory	106,102	2,053	220,692
Total	96,532,029	902,295	77,184,043

Summary for each State, &c.—Continued.

States.	Tobacco.		
	Pounds.	*Acres.*	*Value of crop.*
Maine			
New Hampshire	64,000	65	$16,000
Vermont	59,000		
Massachusetts	6,760,000	4,097	1,690,000
Rhode Island	1,848	$1\frac{37}{100}$	545
Connecticut	9,900,218	6,828	2,475,054
New York	12,912,662	15,085	3,212,025
New Jersey	179,755	25	44,939
Pennsylvania	6,124,551	5,732	1,133,042
Maryland	33,292,968	44,391	4,550,039
Delaware	14,057		
Kentucky	56,956,469	73,969	6,834,776
Ohio	29,017,931	33,335	3,917,421
Michigan	248,473	248	49,695
Indiana	8,767,065	10,241	1,227,389
Illinois	18,867,722	20,802	3,045,789
Missouri	13,697,063	24,372	1,009,257
Wisconsin	148,083	151	22,212
Iowa	390,522	408	97,630
Minnesota	34,659	$43\frac{1}{8}$	6,932
Kansas	22,043	$32\frac{2}{8}$	2,480
Nebraska Territory	1,140		
Total	197,460,229	$239,826\frac{37}{100}$	29,335,225

States.	Hay.		
	Tons.	*Acres.*	*Value of crop.*
Maine	1,085,705	1,240,806	$22,799,805
New Hampshire	694,161	694,161	14,577,381
Vermont	850,127	850,127	15,259,780
Massachusetts	760,517	760,517	22,054,993
Rhode Island	62,044	62,044	1,954,386
Connecticut	449,956	374,963	12,148,812
New York	3,921,264	3,547,810	90,385,135
New Jersey	436,496	277,770	11,660,991
Pennsylvania	1,796,336	1,381,797	44,100,049
Maryland	167,909	125,931	4,533,543
Delaware	33,111	22,074	993,330
Kentucky	112,325	84,243	2,264,472
Ohio	1,415,096	1,061,322	27,424,560
Michigan	847,737	762,963	16,386,756
Indiana	962,805	641,870	17,147,557
Illinois	2,166,725	1,444,483	33,215,894
Missouri	399,599	279,719	7,242,731
Wisconsin	789,765	$691,044\frac{3}{7}$	10,266,945
Iowa	814,764	501,394	7,748,406
Minnesota	249,289	166,192	2,333,345
Kansas	82,569	49,541	1,073,397
Nebraska Territory	18,391	13,793	134,806
Total	18,116,691	$15,034,564\frac{3}{7}$	365,707,074

Table No. 3.

General summary showing the number of bushels, &c., of each crop, the number of acres of each, the value of each, and the bushels, acres, and value of all, and the increase and decrease of the same, for the years 1863 *and* 1864, *and the comparison between the same years.*

AMOUNT OF CROPS.

	1863.	1864.	Increase.	Decrease.
Indian corn	397,839,212	530,451,403	132,612,191	
Wheat	173,677,928	160,695,823		12,982,105
Rye	19,989,335	19,872,975		116,360
Oats	170,129,864	175,990,194	5,860,330	
Barley	12,158,195	10,716,328		1.442,567
Buckwheat	15,786,122	18,700,540	2,914,418	
Potatoes	98,965,198	96,532,029		2,433,169
Total	888,546,554	1,012,959,292	141,386,939	16,974,201
Tobacco	163,353,082	197,460,229	34,107.147	
Hay	18,346,730	18,116,691		230.039

ACREAGE OF CROPS.

Indian corn	15,312,441	17,438,752	2,126,311	
Wheat	13,098,936	13,158,089	59,153	
Rye	1,439,607	1,410,983		28,624
Oats	6,686,174	6,461,750		224,424
Barley	557,299	540,317		16,982
Buckwheat	1,054,060	1,051,700		2,360
Potatoes	1,129,804	902,295		227,509
Tobacco	216,423	239,826	23,403	
Hay	15,641,504	15,034,564		606,940
Total	55,136,248	56,238,276	2,208,867	1,106,839

VALUE OF CROPS.

Indian corn	$278,089,609	$527,718,183	$249,628,574	
Wheat	197,992,837	294,315,119	96,322,282	
Rye	20,589,015	31,975,013	11,385,998	
Oats	105,990,905	139,381,247	33,390,342	
Barley	13,496,373	16,941,023	3,444,650	
Buckwheat	12,660,469	21,986,763	9,326,294	
Potatoes	55,024,650	77,184,043	22,159,393	
Tobacco	24,239,609	29,335,225	5,095,616	
Hay	247,680,855	365,707,074	118,026,219	
Total	955,764,322	1,504,543,690	548,779,368	

The above tables of the general summary do not show the exact comparative differences between the years 1863 and 1864, because the latter year embraces the crops of Kentucky, which are not in the year of 1863. Deducting Kentucky from 1864, the comparison will be as follows:

Table of comparison between 1863 *and* 1864.

	1863.	1864.	Increase.	Decrease.
Total, bushels	888,546,554	959,821,150	71,274,596	
Total tobacco, pounds	163,353,082	140,503,760		22,849,322
Total hay, tons	18,346,730	18,004,366		342,364
Total Acreage	55,136,248	53,950,797		1,185,451
Total value of crops	$955,764,322	1,440,415,435	$484,651,113	

Explanation and comment on the foregoing tables.

The first of these three tables exhibits the *amount*, the *yield* per acre, the *total acreage*, the *price* per bushel, &c., and the *total value* of each of the crops named in the several States. The *amount* is estimated from the returns of correspondents in *tenths*, increase or decrease, of the preceding crops, and the *yield* per acre and *price* per bushel, &c., from their returns also. The average yield per acre and the average price per bushel, &c., are ascertained for each State from them. The *total acreage* is derived by dividing the yield per acre into the amount of the crop, and the *total value* by multiplying the price per bushel, &c., into the amount.

A more accurate way would be to make this division and multiplication into the crops of each county, instead of into the estimates for each State, but this cannot be done, for the Interior Department has not yet published them as given by the census returns of 1860. The returns of each State, as given in the abridged census report, is the basis upon which the amount of the crops for 1862, 1863, and 1864 have been estimated. But as the excess of one county is much counterbalanced by the deficiency of another, or more than counterbalanced by a third, the general result, in this way, from the many returns for each State, affords a much closer approximation than would be supposed at first view. This fact we have determined by various means.

The prices for 1863 were taken in November of that year, and for 1864 on the 1st day of January, 1865. This time is best to show the value of the crops to the farmer, as so large a portion of the crops is sold in October, November, and December.

The table of comparison, between 1863 and 1864, exhibits much that is interesting. There is a large increase in the number of bushels of grain, (71,274,596,) a decrease in tobacco of 22,849,322 pounds, a decrease of hay of 342,264 tons, a decrease in the acreage of 1,185,451 acres, but an increase in value of $484,651,113.

The first increase is from the corn crop, which regained nearly all of its loss in 1863; the second from the condition of the currency, and is a subject of not only present but future interest.

The *value* of the crops, the market value of gold when the prices were taken, and the per cent. increase of the value of both, are as follows:

Years.	Value of crops.	Rate of gold.	Gold, increase per cent.	Increase value of crops per cent.
1862..	$706,887,495	131	—	—
1863..	955,764,322	147	12	35
1864..	1,440,415,435	227	54	50

An examination of the increase of the different crops in 1863 shows that it was chiefly in those most demanded by government for war purposes, hence the difference between 12 per cent. and 35 per cent., being 23 per cent, may be attributed to the advance in value occasioned chiefly by the war demand. The

increase in gold value in 1864 is 4 per cent. over the increase in the value of the crops of that year, the one being 54 per cent., the other 50 per cent. This comparative decrease in the value of the crops may be attributed to the decreased foreign demand, as seen in the decreased exports.

The total increase from November, 1862, to January 1, 1865, in gold value is 73 per cent., and of the value of crops 103 per cent., showing the war demand chiefly has added about 30 per cent. to the value of the crops, and the increased value of gold over currency about 73 per cent.

IMPORTS AND EXPORTS.

The more complete returns of imports and exports than published in the last monthly report are as follows, taken from the New York Journal of Commerce:

Imports at New York.

	1862.	1863.	1864.
Dry goods	$56,121,227	$67,274,547	$71,589,752
General merchandise	117,140,813	118,814,219	144,270,386
Specie	1,390,277	1,525,811	2,265,622
Total imports	174,652,317	187,614,577	218,125,760

Exports at New York.

	1862.	1863.	1864.
Domestic produce	$149,179,591	$164,249,177	$201,855,989
Foreign merchandise free	2,853,848	1,037,212	2,142,458
Foreign merchandise dutiable	4,901,383	5,424,579	17,824,095
Total produce and merchandise	156,934,822	170,710,968	221,822,542
Specie	59,437,021	49,754,066	50,825,621
Total exports	216,371,843	220,465,034	272,648,163

It will be remembered that the values of the *imports* are GOLD values as fixed on the merchandise at the ports from whence imported, and the values of the *exports* of produce and merchandise are CURRENCY values at the port of New York.

EXPORTS AND PRICES OF PRODUCE.

Table of the exports from New York of the leading agricultural products from January 1 to February 22, 1865, compared with those during the same time in 1864, and their prices in New York and Chicago.

	Jan. 1 to Feb. 22, 1865.	Jan. 1 to Feb. 22, 1865.	Prices in N. York Feb. 22, 1865.	Prices in Chicago Feb. 14, 1865.
Wheat flour.....barrels..	$224,715	$308,998	$9 90 to 12 00	$6 00 to 10 00
Rye flour.....barrels..	397	580	.....	6 25 to 6 50
Corn meal.....barrels..	24,409	19,742	7 75 to 8 60	.....
Wheat.....bushels..	105,578	2,417,190	2 60	1 27 to 1 51½
Corn.....bushels..	77,346	20,847	1 90	77 to 78
Rye.....bushels..	141	255	.....	96 to 1 02
Barley.....bushels..	.....	.....	2 08	1 20 to 1 25
Oats.....bushels..	12,366	3,797	1 07 to 1 13	59½ to 61
Peas.....bushels..	9,786	46,622	.....	.....
Cotton.....bales..	6,831	205	84 to 85	.....
Hay.....bales..	5,844	2,806	*1 60 to 1 65	90 to 1 00
Hops.....bales..	5,123	7,933	25 to 50	33 to 55
Leaf tobacco..hogsheads..	18,029	4,324	15 to 42	.....
Leaf tobacco...packages..	17,263	5,523	.....	.....
Man'fac'd tobacco.pounds..	1,020,950	566,330	.....	65 to 1 50
Petroleum.....gallons..	1,446,228	2,198,017	67 to 68	.....
Pork.....barrels..	21,525	24,974	33 25 to 35 87½	30 50 to 34 75
Beef.....barrels..	7,427	5,036	18 00 to 24 00	14 00 to 17 00
Beef.....tierces..	12,058	18,006	.....	.....
Cut meats.....pounds..	8,467,920	27,650,245	17 to 21	14½ to 16½
Butter.....pounds..	4,010,086	4,641,063	32 to 46	21 to 30
Cheese.....pounds..	7,197,309	4,903,290	15 to 25	18 to 24
Lard.....pounds..	6,374,577	5,931,101	20 to 25	20¼ to 23¾
Tallow.....pounds..	5,200,226	7,537,074	15½ to 16½	13½ to 14¾

* Per hundred pounds.

Shipments of specie from San Francisco.

[From the San Francisco Mercantile Gazette.]

Years.	East'n ports.	England.	China.	Panama.	Other ports.	Total.
1854....	$46,533,166	$3,781,080	$965,887	$204,592	$560,908	$52,045,633
1855....	38,730,564	5,182,156	889,675	231,207	128,129	45,161,731
1856....	39,895,294	8,666,289	1,308,852	253,268	573,732	50,697,434
1857....	35,531,778	9,347,743	2,993,264	410,929	692,978	48,976,692
1858....	35,891,236	9,265,739	1,916,007	299,265	175,779	47,584,026
1859....	40,146,437	3,910,930	3,100,756	279,949	202,390	47,640,462
1860....	35,719,296	2,672,936	3,374,680	300,819	258,185	42,325,916
1861....	32,628,011	4,061,779	3,541,279	349,769	95,920	40,676,758
1862....	26,194,035	12,950,140	2,660,754	434,508	322,324	42,561,761
1863....	10,389,330	28,467,256	4,206,370	2,503,296	505,667	46,071,920
1864....	12,316,122	34,436,423	7,888,973	378,795	686,888	55,707,201
Total .	353,975,269	122,749,471	32,846,497	5,646,397	4,202,900	519,413,534

Wool product of California.

Year.	Pounds.	Inc'se per ct.		PRICES IN 1864.	
				Sp'g wool.	Fall wool.
1855	360,000				
1856	600,000	66	Merino	23 to 25	17 to 18
1857	1,100,000	83	Half merino	21 to 23	17 to 18
1858	1,428,000	30	American	19 to 21	16 to 17
1859	2,378,000	66	Half American	18 to 19	15 to 16
1860	3,260,000	37	Mixed	15 to 18	14 to 15
1861	4,600,000	41	Burry	13 to 15	10 to 13½
1862	6,400,000	40			
1863	7,600,000	19			
1864	8,000,000	5			

Of the crop of 1864 there was shipped to—

New York	5,491,814	pounds.
Boston	842,850	"
Total to Atlantic States	6,334,664	"

METEOROLOGY.

FROM THE SMITHSONIAN INSTITUTION.

JANUARY, 1865.

Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and amount of rain, (in inches and tenths,) for January, 1865, at the following places, as given by the observers named. The daily observations were made at 7 o'clock a. m. and 2 and 9 p. m.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
MAINE.								
				°		°	°	*In.*
Steuben	Washington	J. D. Parker	9	36	17	—12	16.1	4.44
Lee	Penobscot	Edwin Pitman	10, 13	34	20	—20	13.5	4.05
West Waterville	Kennebec	B. F. Wilbur	13	35	28	—13	14.7	4.90
Gardiner	....do	Rev. F. Gardiner	6, 10, 14	34	17	—22	15.3	3.10
Lisbon	Androscoggin	Asa P. Moore	14	35	17	—20	14.7	2.68
Cornish	York	Silas West	7	39	17	— 6	15.6	3.93
Cornishville	....do	G. W. Guptill	7	50	16	— 8	16.6	3.72
NEW HAMPSHIRE.								
Stratford	Coos	Branch Brown	6, 14	30	8	—18	10.7	3.00
Shelburne	....do	F. Odell	13	37	17	—18	16.8	2.42
Barnstead	Belknap	Chas. H. Pitman	6	38	28	— 2	19.5	2.70
Claremont	Sullivan	S. O. Mead	6	38	28	—16	16.3	.....
Do	....do	Arthur Chase	13	39	28	—12	16.5	2.95
VERMONT.								
Lunenburg	Essex	H. A. Cutting	6, 10, 23	32	17	—25	14.8	3.35
Craftsbury	Orleans	Jas. A. Paddock	14	32	8, 16, 18	—12	11.3	2.65
Middlebury	Addison	H. A. Sheldon	13	36	18	—16	14.9	2.15
Brandon	Rutland	R. V. Marsh	6	40	22	—26	.....	.....
MASSACHUSETTS.								
Sandwich	Barnstable	N. Barrows, M. D.	7	50	28	3	23.6	6.60
Topsfield	Essex	A. M. Merriam	6	44	28	9	25.8	3.82
Newbury	....do	Jno. H. Caldwell	6	44	28	— 3	19.9	.....
New Bedford	Bristol	Sam'l Rodman	7	48	29	4	23.3	5.18
State Lunatic Hosp'l.	Worcester	F. H. Rice	6, 31	40	8, 29	4	21.2	3.92
Mendon	....do	Jno. G. Metcalf, M.D.	31	40	29	0	19.2	.....
Baldwinsville	....do	Rev. E. Dewhurst	6, 14, 31	35	8, 28	— 7	13.7	4.02
Springfield	Hampden	J. Weatherhead	6, 31	39	19	— 9	19.5	3.23
Westfield	....do	Rev. E. Davis	6, 14	36	19, 29	— 5	18.6	3.28
Richmond	Berkshire	Wm. Bacon	6, 10	40	28	— 4	17.7	5.45
Williams College	....do	Prof. A. Hopkins	6	37	18	— 5	17.3	.....

Table showing the range of the thermometer, &c., for January—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
CONNECTICUT.				°		°	°	In.
Pomfret	Windham	Rev. D. Hunt	6	38	8	2	19.2	3.55
Columbia	Tolland	Wm. H. Yeomans	30	44	19	0	23.7	------
Middletown	Middlesex	Prof. Jno. Johnston	13	42	19	— 4	21.7	4.16
Colebrook	Litchfield	Charlotte Rockwell	6	38	19, 28	— 5	15.9	------
NEW YORK.								
Moriches	Suffolk	E. A. and N. Smith	10	52	19	— 9	26.3	6.07
South Hartford	Washington	G. M. Ingalsbe	6, 23	39	18	—13	17.1	2.60
Fishkill Landing	Dutchess	Wm. H. Denning	14	41	21	— 1	18.5	2.82
Garrison's	Putnam	Thos. B. Arden	14	35	8, 20	2	19.0	2.46
Deaf and Dumb Inst.	New York	Prof. O. W. Morris	31	45	28	6	26.6	3.41
Columbia College	....do	Prof. Chas. A. Joy	10	45	8, 28	7	22.8	------
St. Xavier's College	....do	Rev. Jno. M. Aubier	10	46	8, 28	8	24.6	------
Flatbush	Kings	Eli T. Mack	10	46	19	4	22.9	3.36
Newburg	Orange	James H. Gardiner	14	40	18, 20, 21, 25, 26, 27, 28.	10	23.9	------
Gouverneur	St. Lawrence	C. H. Russell	6	37	18	—28	13.3	1.48
Clinton	Oneida	Dr. H. M. Paine	13, 23	40	8	—10	20.9	2.42
South Trenton	....do	Storrs Barrows	------	------	19, 26	—22	------	5.70
Oneida	Madison	Dr. S. Spooner	6	40	8	— 4	20.7	3.80
Cazenovia	....do	Prof. Wm. Soule	13	34	8	—16	16.0	5.70
Theresa	Jefferson	S. O. Gregory	6	36	18	—31	12.8	1.13
Depauville	....do	Henry Haas	10	36	18	—14	16.3	3.60
Oswego	Oswego	Wm. S. Malcolm	6, 13	36	8	— 4	20.1	3.95
Palermo	....do	E. B. Bartlett	6	36	8	—14	15.1	3.40
Skaneateles	Onondaga	W. M. Beauchamp	22	34	8	— 7	17.2	------
Baldwinsville	....do	John Bowman	6, 22	35	8	— 4	18.3	1.80
Auburn	Cayuga	John B. Dill	6	36	28	2	18.4	------
Nichols	Tioga	Robert Howell	13	40	27	— 9	17.3	------
Palmyra	Wayne	Stephen Hyde	22	42	8, 16	8	24.7	------
Geneva	Ontario	Rev. Dr. W. D. Wilson	13	39	28	4	20.3	2.54
Rochester	Monroe	Prof. C. Dewey	22	43	8, 18	4	20.6	2.83
Do	....do	Dr. M. M. Mathews	22	42	8, 18	4	21.1	2.83
Buffalo	Erie	Wm. Ives	22	37	18	— 6	20.4	4.31
Jamestown	Chautauqua	Rev. S. W. Roe, M.D.	9	41	20	— 9	17.2	------
NEW JERSEY.								
Paterson	Passaic	Wm. Brooks	13	43	19	—11	22.3	4.89
Newark	Essex	W. A. Whitehead	10	44	19	3	23.2	4.09
New Brunswick	Middlesex	Geo. W. Thompson	6	44	19	— 4	22.3	------
Burlington	Burlington	John C. Deacon	10	57	19, 28	4	24.3	4.15
Progress	....do	Thos. J. Beans	13	40	19	4	23.0	4.05
Mount Holly	....do	M. J. Rhees, M. D	10	54	19	0	25.4	------
Moorestown	....do	J. W. Lippincott	10	54	28	6	24.8	------
Seaville	Cape May	Barker Cole	13	54	5	5	26.7	------
Haddonfield	Camden	Jas. S. Lippincott	10	55	19	— 1	25.8	3.60
Greenwich	Cumberland	R. C. Sheppard	10	52	5	7	26.4	3.81
PENNSYLVANIA.								
Fallsington	Bucks	Ebenezer Hance	10	52	5, 19, 28	6	25.0	3.10
Philadelphia	Philadelphia	Pf. J. A. Kirkpatrick	10	51	28	7	26.5	3.60

Table showing the range of the thermometer, &c., for January—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
PENNSYLVANIA—C'd.				°		°	°	*In.*
Germantown	Philadelphia	Thos. Meehan	31	44	28	2	.....	.....
Mooreland	Montgomery	Anna Spencer	10	48	19	2	29.2	3.05
Dyberry	Wayne	Theod. Day	10	39	18, 19	—10	13.9	.....
Nazareth	Northampton	L. E. Ricksecker	13	42	28	1	21.6	.....
North Whitehall	Lehigh	Edward Kohler	22, 31	40	19	— 6	22.0	.....
Silver Spring	Lancaster	H. G. Bruckhart	13	45	26	3	23.3	.....
Mount Joy	do	J. R. Hoffer	13	46	28	4	24.9	3.15
Berwick	Columbia	John Eggert	10	40	28	— 7	21.6	2.57
Harrisburg	Dauphin	Dr. John Heisely	13	39	28	9	25.0	4.15
Tioga	Tioga	E. T. Bentley	6	48	18	—14	19.3	2.36
Gettysburg	Adams	M. and H. E. Jacobs	13	43	28	2	21.0	4.24
Fleming	Center	Samuel Brugger	31	42	19	— 8	19.2	2.75
Pennsville	Clearfield	Elisha Fenton	5, 6	41	19	— 7	18.5	3.24
Blairsville	Indiana	W. R. Boyers	6	28	19	— 5	15.0	4.30
Connellsville	Fayette	John Taylor	22	49	8, 19	— 8	20.9	.....
Canonsburg	Washington	Rev. Wm. Smith, D.D.	9, 23	39	19	— 8	.....	.....
DELAWARE.								
Wilmington	New Castle	Dr. Urban D. Hedges	10	53	28	5	26.9	6.80
MARYLAND.								
Annapolis	Anne Arundel	Wm. R. Goodman	10	47	28	8	29.4	4.68
St. Inigoes	St. Mary's	Rev. J. Stephenson	10	58	28	12	32.1	3.40
Sykesville	Carroll	Miss H. M. Baer	13	43	5, 8	5	22.1	3.50
SOUTH CAROLINA.								
Hilton Head	Beaufort	Capt. C. R. Suter	21	68	27	24	44.5	3.63
Beaufort	do	Dr. M. M. Marsh	23	66	1	19	42.4	4.76
MISSISSIPPI.								
Natchez	Adams	Robert McCary	3, 5	68	24, 25	20	44.7	8.05
KENTUCKY.								
Louisville	Jefferson	Mrs. L. Young	5	47	28	— 6	25.8	3.41
Chilesburg	Fayette	Samuel D. Martin	22	50	28	0	.....	3.65
OHIO.								
Saybrook	Ashtabula	Jas. B. Fraser	22	40	18, 20	— 1	19.6	.....
Austinburg	do	E. D. Winchester	6	46	20	— 1	18.5	.....
New Lisbon	Columbiana	J. F. Benner	6	42	8, 19	—12	19.7	3.50
East Fairfield	do	S. B. McMillan	22	39	19	— 5	20.2	2.88
Steubenville	Jefferson	R. Marsh	.....	42	.....	0	23.3	1.73
Welshfield	Geauga	B. F. Abell, A. M	22	41	18, 25, 27	1	20.2	3.57
Milnersville	Guernsey	Rev. D. Thompson	5	48	20	—14	19.7	2.63
Cleveland	Cuyahoga	Mr. and Mrs. G. A. Hyde.	5	43	19	3	23.2	1.77
Wooster	Wayne	Mr. and Mrs. Winger	5	42	19	—10	20.1	.....
Smithville	do	J. H. Myers	5	48	18, 19	—10	20.5	.....
Kelley's Island	Erie	Geo. C. Huntington	9, 13	42	25, 26	3	23.2	1.27
Norwalk	Huron	Rev. A. Newton	5	45	19	— 2	21.7	1.17
Westerville	Franklin	Pf. H. A. Thompson	5	42	18, 25	— 3	18.2	1.80
Kingston	Ross	Pf. John Haywood	5, 22	43	30	1	23.2	3.51
Portsmouth	Scioto	L. Engelbrecht	5	44	28	8	26.3	3.70

Table showing the range of the thermometer, &c., for January—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
OHIO—Continued.				°		°	°	*In.*
Urbana University	Champaign	Pf. M. G. Williams	22	42	1, 18	— 5	20. 0	1. 55
Hillsborough	Highland	J. McD. Mathews	5	44	25	— 2	23. 6	3. 19
Ripley	Brown	Dr. G. Bambach	5	49	.....	.....	.....	4. 27
Bethel	Clermont	Geo. W. Crane	5	43	25	— 1	21. 4	1. 29
Cincinnati	Hamilton	George W. Harper	5	45	28	3	24. 7	2. 45
Do	....do	R. C. Phillips	5	47	28	—10	28. 9	2. 12
College Hill	....do	John W. Hammitt	5	43	25, 28	— 0	22. 1	3. 70
Do	....do	John H. Wilson	22, 31	40	28	0	22. 5	4. 13
MICHIGAN.								
Pontiac	Oakland	James A. Weeks	5	41	20	0	21. 1	.....
Monroe	Monroe	Miss F. E. Whelpley	5	44	11	0	23. 7	.....
State Agric'l College	Ingham	Prof. R. C. Kedzie	5	39	27	1	21. 1	0. 65
Garlick	Ontonagon	Edwin Ellis	30	33	17	— 4	.....	.....
INDIANA.								
Vevay	Switzerland	Chas. G. Boerner	5	45	28	— 4	26. 3	.....
Pennville	Jay	Miriam Griest	13, 30	48	1	—11	20. 1	.....
New Castle	Henry	T. B. Redding, A. M.	13	45	1	— 4	20. 1	1. 98
Madison	Jefferson	Rev. S. Collins	13	41	28	— 4	26. 3	4. 25
New Albany	Floyd	E. S. Crozier, M. D.	5	48	27, 28	2	25. 4	2. 80
South Bend	St. Joseph	Reuben Burroughs	21	44	26	— 5	21. 0	1. 95
Indianapolis	Marion	W. W. Butterfield	5	44	18	— 6	29. 9	.....
Do	....do	Royal Mayhew	31	45	18	— 4	22. 2	1. 72
Rensselaer	Jasper	Dr. J. H. Loughridge	21	46	26	— 4	21. 0	1. 05
Bloomingdale	Parke	Miss M. A. Hobbs	29	48	28	— 2	33. 4	.....
New Harmony	Posey	John Chappellsmith	31	48	28	6	28. 4	2. 10
ILLINOIS.								
Chicago	Cook	Samuel Brookes	21	44	26	— 8	18. 5	.....
Evanston	....do	A. D. Langworthy	21	45	25, 26	— 7	20. 4	.....
Riley	McHenry	E. Babcock	9, 20, 21	40	18	—15	17. 8	0. 60
Sandwich	DeKalb	Dr. N. E. Ballou	9	51	25, 26	— 8	20. 6	0. 25
Ottawa	La Salle	Mrs. E. H. Merwin	20	44	25	— 8	21. 6	0. 45
Winnebago	Winnebago	James W. Tolman	20	38	18	—18	17. 4	0. 27
Wyanet	Bureau	E. S. and Miss Phelps	12, 20	44	18	—11	20. 2	0. 30
Tiskilwa	....do	Verry Aldrich	20	42	25, 27, 28	0	22. 5	.....
Elmira	Stark	O. A. Blanchard	12	47	26	— 8	21. 4	0. 30
Hennepin	Putnam	Smiley Shepherd	12, 20	42	19	—10	20. 3	.....
Peoria	Peoria	Frederick Brendel	20	48	26	— 2	24. 2	0. 22
Springfield	Sangamon	G. M. Brinkerhoff	12	50	26	— 2	27. 0	.....
Hoyleston	Washington	J. Ellsworth	5	50	26	— 1	25. 7	0. 50
Waverly	Morgan	Timothy Dudley	20	45	26	— 5	23. 7	0. 20
Galesburg	Knox	Prof. W. Livingston	20	41	25, 26	— 7	21. 0	0. 30
Manchester	Scott	Dr. and Miss E. Grant	20	51	26	— 3	25. 1	0. 25
Augusta	Hancock	S. B. Mead, M. D.	20	48	26	— 7	22. 1	0. 15
WISCONSIN.								
Manitowoc	Manitowoc	Jacob Lüps	21	41	18, 25, 26	— 4	20. 6	0. 27
Milwaukee	Milwaukee	I. A. Lapham, LL.D.	21	42	25	— 8	18. 6	0. 22
Do	....do	Carl Winkler	21	43	25	— 7	19. 4	0. 02
Green Bay	Brown	Fr. Deckner	5, 20	37	18	—11	15. 3	0. 61

Table showing the range of the thermometer, &c., for January—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
WISCONSIN—Cont'd.				°		°	°	*In.*
New Holstein	Calumet	Ferd. Hachez	21	42	18	—12	16.6	0.50
Geneva	Walworth	William H. Whiting	21	40	25	—10	17.5	0.30
Delavan	do	Leveus Eddy	20, 21	38	18	—13	16.6	0.17
Waupacca	Waupacca	H. C. Mead	21	40	18	—13	16.6	0.50
Embarrass	do	E. Everett Breed	31	38	18	—22	15.5	1.00
Baraboo	Sauk	M. C. Waite	20	42	18	—10	20.3	0.48
MINNESOTA.								
St. Paul	Ramsey	Rev. A. B. Paterson	12	38	24	—17	13.7	0.66
Minneapolis	Hennepin	Wm. Cheney	12	42	18	—21	13.0	0.75
New Ulm	Brown	Charles Roos	4	41	18	—18	13.3	0.40
IOWA.								
Lyons	Clinton	Dr. J.P. Farnsworth	20	40	18, 25	—10	18.3	0.50
Dubuque	Dubuque	Asa Horr, M. D	12, 14	39	18	—16	15.3	0.24
Muscatine	Muscatine	J. P. Walton	20	44	18	—10	18.9	0.46
Monticello	Jones	Chauncey Mead	20	43	18	—13	14.1	0.29
Guttenberg	Clayton	P. Dorweiler	12, 20	36	18	— 8	16.7	0.09
Iowa City	Johnson	Prof. T. S. Parvin	12	46	25	—10	20.5	0.30
Independence	Buchanan	D. S. Deering	12	43	18	—14	18.3	.....
Do	do	A. C. Wheaton	12	43	18, 26	— 7	17.9	0.25
Waterloo	Black Hawk	T. Steed	12	46	23	—14	24.4	.....
Iowa Falls	Hardin	N. Townsend	12, 20	40	18	— 4	16.9	0.16
Algona	Kossuth	Dr. F. & Miss McCoy	12	43	24, 26	—14	15.3	0.60
Clarinda	Page	Dr. S. H. Kridelbaugh	12	50	26, 28	— 4	23.8	.....
MISSOURI.								
Allenton	St. Louis	A. Fendler	20	53	11	— 7	25.4	0.65
Canton	Lewis	George P. Ray	20	53	26	— 6	21.9	0.14
Harrisonville	Cass	John Christian	12	48	26	— 6	25.5	0.45
Easton	Buchanan	P. B. Sibley	12	48	26	—10	22.8	0.13
KANSAS.								
Olatha	Johnson	H. Beckwith	12	52	26	— 6	21.6	0.53
Agricultural College	Riley	H. L. Denison	14.19,31	49	23	— 5	27.5	0.33
Fort Riley	Davis	James H. Pine	12, 19	55	26, 28	— 1	29.7	.....
NEBRASKA.								
Bellevue	Sarpy	Rev. Wm. Hamilton	19	50	26	— 9	23.2	0.13
Nursery Hill	Otoe	R. O. Thompson	12	50	26	— 8	22.4	0.30
Addenda—Dec., 1864.								
KANSAS.								
Lawrence	Douglas	A. N. Fuller	1	59	11	— 7	24.9	2.00
NEBRASKA.								
Elkhorn	Washington	Miss A. M. J. Bowen	1	49	11	—16	16.4	.....
MISSISSIPPI.								
Natchez	Adams	Robert McCary	2, 16, 19	76	12	16	52.3	7.47
UTAH.								
Great Salt Lake City	Great Salt Lake	W. W. Phelps	5	49	21, 22	14	30.9	4.54
CALIFORNIA.								
Sacramento	Sacramento	Thos. M. Logan, M.D.	5	61	18, 19, 22, 23.	36	50.2	7.87
Meadow Valley	Plumas	Mrs. M. D. Smith	5	53	18	3	36.7	15.80

Table showing the average temperature and fall of rain (in inches and tenths) for the month of January in each year named, and for the five years first named, collectively, with the average number of places in each State in which the observations were made.

States and Territories.	Av. number of places.	Averages, 1855.		Averages, 1856.		Averages, 1857.		Averages, 1858.		Averages, 1859.		Av. for five years.		Averages, 1864.		Averages, 1865.	
		Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.
		Deg.	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*
Maine	5	24.3	4.83	12.6	2.46	11.9	7.81	22.6	3.81	17.7	4.81	17.8	4.74	22.2	4.02	15.2	3.83
New Hampshire	4	25.8	5.65	15.8	2.95	10.4	3.34	25.1	2.46	16.1	3.82	18.6	3.64	20.1	3.27	16.0	2.77
Vermont	4	25.3	1.95	11.4	1.48	8.2	2.57	22.7	1.88	18.1	2.63	17.1	2.10	22.5	3.69	13.7	2.72
Massachusetts	12	29.1	4.88	18.0	3.24	16.0	5.06	31.2	3.20	26.0	7.04	24.1	4.68	25.5	3.03	20.0	4.44
Rhode Island	1	30.0	6.45	18.6	5.25	16.3	5.50	33.1	3.33	29.3	5.75	25.5	5.26	27.3	4.66	.....	.....
Connecticut	4	29.6	5.40	20.3	4.61	15.8	4.32	32.4	3.03	25.8	7.53	24.8	4.98	26.5	3.34	20.1	3.86
New York	19	27.7	3.36	16.9	2.82	13.9	3.04	31.0	2.25	26.4	3.52	23.2	3.00	26.4	3.26	19.7	3.31
New Jersey	5	32.4	3.37	20.6	3.67	19.6	4.43	37.2	3.58	31.7	5.47	28.3	4.10	29.9	2.03	24.4	4.10
Pennsylvania	19	30.0	2.72	18.6	2.54	18.4	2.69	36.3	2.15	30.5	3.52	26.8	2.72	28.6	2.59	21.7	3.32
Delaware	1	.....	.....	21.1	.....	20.2	.....	40.7	1.17	.....	4.84	27.3	3.00	.....	.....	26.9	6.80
Maryland	5	33.8	3.28	21.9	3.59	21.9	2.88	38.6	1.67	34.2	4.69	30.1	3.22	34.0	2.24	27.9	3.86
District of Columbia	1	35.1	.....	21.6	4.00	21.8	0.89	40.2	1.62	36.3	4.54	31.0	2.76	33.5	2.58	.....	.....
South Carolina	5	47.2	1.31	36.4	6.47	35.4	2.57	53.2	3.98	45.3	3.33	43.5	3.53	46.0	1.25	43.5	4.20
Tennessee	2	39.6	3.64	25.6	1.38	26.9	2.16	45.8	4.56	39.6	3.31	35.5	3.01	.....	.....	.....	.....
Kentucky	4	38.7	3.32	20.9	1.80	24.7	1.53	42.1	2.66	34.0	3.05	32.1	2.47	29.7	3.19	25.8	3.53
Ohio	19	31.4	2.73	17.4	1.69	16.8	1.39	37.3	1.72	30.5	2.42	26.7	1.99	26.5	3.52	21.8	2.64
Michigan	7	25.8	3.50	13.3	1.24	11.3	2.70	31.7	4.01	25.5	2.70	21.5	2.83	24.4	1.61	22.0	0.65
Indiana	4	33.6	4.66	21.5	0.80	16.9	1.01	38.5	2.64	31.8	2.29	28.5	2.28	27.7	3.33	24.9	2.26
Illinois	12	28.2	9.24	14.4	0.96	11.7	0.72	34.5	1.82	26.2	1.78	23.0	2.90	20.1	2.17	21.7	0.32
Wisconsin	9	21.2	2.60	9.7	8.56	6.9	1.12	29.7	2.07	19.7	1.21	17.4	3.11	18.4	2.67	17.7	0.41
Minnesota	3	0.8	.....	0.9	2.35	6.0	0.91	20.9	2.51	11.1	0.98	7.9	1.69	11.4	0.38	13.3	0.60
Iowa	7	23.5	2.08	9.3	1.04	5.7	0.77	32.0	2.03	22.9	1.05	18.7	1.39	17.0	1.28	18.4	0.32
Missouri	2	33.8	4.66	20.1	1.03	19.3	0.41	39.6	2.85	33.4	2.32	29.2	2.25	24.4	1.86	25.0	0.29
Nebraska Territory	1	.....	.....	.....	.....	.....	.....	32.9	1.82	22.4	0.94	27.6	1.38	17.4	0.41	22.8	0.22
Kansas	2	.....	.....	.....	.....	.....	.....	37.7	1.79	30.8	1.43	34.2	1.61	25.1	0.82	26.3	0.43
California	2	44.4	2.67	65.2	4.57	50.1	1.49	46.7	2.50	45.6	1.41	50.4	2.53	.....	.....	.....	.....

In the New England and Middle States, and as far west as Indiana, the snows in January were frequent and some of them deep; but west of that State very little snow fell, and at most of the stations no rain.

Cornish, Maine.—Twenty-six and a quarter inches of snow in January; nearly half of it fell on the 23d and 24th.

Gardiner, Maine.—Amount of snow in January 32¾ inches. Good sleighing, and river closed every day during the month. The mean temperature was 3.63° lower than the mean of January for the previous twenty-eight years. The coldest January in those years was in 1844, 7.08°; the warmest in 1841, 26.43°.

West Waterville, Maine.—Amount of snow, forty-three inches.

Lisbon, Maine.—Amount of snow, fifteen inches; about ten inches fell on the 23d, drifting badly, blocking up the railroads, and stopping trains the next day. On the last day of the month there was three feet of snow in the woods, and about two feet on an average in the roads.

Lee, Maine.—Forty and a half inches of snow during the month; fifteen inches fell on the 23d and 24th. January 31: There is now something over three feet of snow on the ground in the woods.

Cornishville, Maine.—Thirty-four inches of snow fell during the month; twelve inches of it on the 23d.

Steuben, Maine.—Thirty-three and a quarter inches of snow during the month; the deepest were six inches on the 2d, nine inches on the 4th, 5th, and nine inches on the 23d, 24th.

Claremont, N. H.—January has been characterized by steady cold and no thaw of any account. The sleighing was never better than now. It commenced early in the season and has been enjoyed without intermission. It would be difficult to find a month of January containing so many days favorable to work, both by men and cattle. The farmers say this has been a good season for stock, the cold having kept everything dry and clean. Seventeen and a half inches of snow fell during the month; seven inches fell during the storm of the 23d.

Shelburne, N. H.—Seven inches of snow fell on the 23d. The trains were delayed by this storm on the railroads throughout the State. Twenty-four and two-tenths inches of snow in the month.

Barnstead, N. H.—Twenty-seven inches of snow in January; twelve of it on the 23d.

Stratford, N. H.—Thirty inches of snow during the month; ten in the storm of the 23d.

Craftsbury, Vermont.—Amount of snow in January, twenty-seven inches.

Lunenburg, Vermont.—Amount of snow, thirty-one inches; twelve inches on the 23d and 24th.

Middlebury, Vermont.—Depth of snow during the month twenty and a quarter inches.

Westfield, Massachusetts.—The sleighing has been very good every day during the month.

New Bedford, Massachusetts.—The snow that has fallen has at no time made good sleighing, and there have been few days that sleighs were out in large numbers. No obstruction by ice in the outer harbor, and the approach to the wharves below the bridge has been kept open by the steam ferry-boat, which occasionally ran down the main channel between the fort and Palmer's island, to let the broken ice drift out with the wind and tide.

Worcester, Massachusetts.—One and a half inch of snow on the 24th; fifteen and a half inches during the month.

Baldwinsville, Massachusetts.—Nineteen inches of snow during the month eight inches on the 23d.

Topsfield, Massachusetts.—Fifteen and a half inches of snow during the month; on the 23d one inch, also rain and hail.

Sandwich, Massachusetts.—Amount of snow during the month eighteen and a quarter inches rain on the 23d. This has been a remarkably cold January, and also remarkable for the number of snow-storms unaccompanied with heavy wind, thus giving an unusual number of days of sleighing. The ice was five and a half inches thick on Sandwich pond on the 11th, and nearly ten inches on the 31st.

Newbury, Massachusetts.—Ten and a half inches of snow during the month. On the 23d a heavy fall, the most of the forenoon; snow from 1 p. m. to 10½ p. m. three inches.

Springfield, Massachusetts.—This has been the coldest January since 1857; good sleighing all the month.

Middletown, Connecticut.—Eleven inches of snow in January; rain on the 23d.

Columbia, Connecticut.—Eleven inches of snow during the month; rain and fog on the 23d; snow squalls on the 24th.

Theresa, New York.—Amount of snow 15.2 inches; the greatest depth of snow on the ground this month, twenty-six inches; snow and rain on the 22d.

Moriches, New York.—Fifteen and a half inches of snow during the month; sleet on the 23d.

Nichols, New York.—January 23, snow from 7 a. m. to sunset; between six and seven inches fell. 25th, Susquehanna river closed. 27th, teams cross in various places on the ice.

Palmyra, New York.—January 23, began snowing at 10 a. m.; stopped at 5 p. m.; melted as fast as it fell.

Jamestown, New York.—Forty-three inches of snow fell in January. The month has been good winter weather. The snow is deeper than has been known for nine years. Many roads are wholly impassable, and there are drifts which may hardly be expected to disappear before May. The ice in Chautauqua lake is about ten inches. There are no places bare of snow. In riding thirty miles, to day, (February 1,) I have not seen a field bare of snow; half of the way I rode over snow drifted six feet deep.

South Trenton, New York.—Fifty-seven inches of snow during the month; four inches on the 23d.

Garrison, New York.—The river closed on the 26th of December, and has continued so through January. Fourteen inches of snow this month; two inches on the 23d.

Clinton, New York.—Twenty-four inches of snow during the month; six inches from the 21st to the 23d.

New York, New York.—Eleven inches of snow during the month; rain on the 23d. Snow for a few minutes at 8 p. m. on the 24th; hardly covered the ground.

Oswego, New York.—Forty-eight inches of snow.

Rochester, New York.—Twenty-three and a half inches of snow. Good sleighing from the 11th to the close of the month. The mean temperature of January, 1857, was 15°, the lowest on record.

Gouverneur, New York.—Amount of snow twenty-three inches.

Fishkill, New York.—Fifteen inches of snow. Newburgh bay closed by ice on the 8th; crossing on foot.

Skaneateles, New York.—Seventy inches of snow during the month; eighteen inches on the 23d.

South Hartford, New York.—Twenty-one inches of snow during the month.

No snow or rain recorded on or near the 23d. January 11: In consequence of the frozen rain adhering to the track of the railroad, communication by rail was delayed full twenty hours. Two powerful engines were thirteen hours in accomplishing the distance of twenty-three miles, from Whitehall to Fort Edward. January 21: Ice trade on the Hudson river at Fort Edward commenced.

Vermillion, New York.—Thirty-three inches of snow during the month; three inches on the 23d and 24th. This January has been the coldest for five years.

Cazenovia, New York.—Fifty-seven inches of snow during the month; twelve inches on the 2d, ten and a half inches on the 7th, six inches on the 23d, and five inches on twelve other days. The mean temperature of the month is more than four degrees below the average of the last thirteen years; only two Januaries were colder, those of 1856 and 1857.

Depauville, New York.—Depth of snow at the end of the month, three feet on a level; no frost in the ground below the snow.

Buffalo, New York.—Amount of snow during the month forty-six inches. This January was colder by six degrees than the same period for seven years, with three times the amount of snow. There have been but twelve entirely clear days in four months. Lake Erie was closed by ice on the first; there was good sleighing the entire month. Amount of snow thus far, this winter, eighty-three inches.

Auburn, New York.—This has been the coldest January since 1857; there there have been four weeks of good sleighing.

Oneida, New York.—Thirty-five inches of snow in January.

Greenwich, New Jersey.—Six inches of snow fell during the month; rained on the 23d.

Newark, New Jersey.—Ten and a half inches of snow during the month; rain on the 23d; flurries of snow on the 24th.

Mount Holly, New Jersey.—Eight inches of snow.

New Brunswick, New Jersey.—January 5, roads in good sleighing order; 19th, temperature at 7 a. m. 4° below zero; the coldest morning in four years; ground frozen about six inches.

Burlington, New Jersey.—January 2: Delaware river froze over last night; the second time this winter. January 31: The Delaware has been frozen over at least four times this winter, and teams can now cross on the ice to Bristol. Although the greatest depth of snow falling at one time has been but two inches, the snow has not disappeared at any time during the month; whole amount of snow seven and a half inches.

Passaic Valley, New Jersey.—Eleven and a half inches of snow fell during the month.

Progress, New Jersey.—Delaware river froze over the night of the 17th. Amount of snow during the month seven and three-fourths inches.

Moorestown, New Jersey.—Amount of snow during the month seven and a quarter inches.

Haddonfield, New Jersey.—Eight and a quarter inches of snow. The winter thus far has been more uniformly cold, and more snow has fallen and has remained longer on the ground than in the previous winter. The crop of wheat will promise better from the protection thus afforded.

Canonsburg, Pennsylvania.—Seventeen and a quarter inches of snow fell during the month; four inches on the 22d and 23d.

Harrisburg, Pennsylvania.—Amount of snow during the month, nine and a half inches; three inches on the 21st, and three inches on the 23d.

Fallsington, Pennsylvania.—January 4.—Delaware river closed the third time this winter. 10th, river broke up the third time. 18th, river closed the fourth time. Amount of snow during the month, eleven inches.

Gettysburg, Pennsylvania.—Fall of snow during the month, 4.18 inches.

Berwick, Pennsylvania.—Fall of snow, thirteen inches.

Philadelphia, Pennsylvania.—January 18: Schuylkill river closed with ice, and continued closed the remainder of the month. Amount of snow, nine inches.

Dyberry, Pennsylvania.—January 31: Streams are very low and well scaled with ice. The ground is frozen one and a half inch under fourteen inches depth of snow, which is much drifted on the hills. Amount of snow during the month, thirteen inches; four inches on the 23d.

Blairsville, Pennsylvania.—Eighteen inches of snow fell during the month.

Fleming, Pennsylvania.—Ten inches of snow fell during the month.

Connelsville, Pennsylvania.—Twenty-four and a half inches of snow during the month; five inches on the 23d.

Horsham, Pennsylvania.—Seven inches of snow during the month. The month throughout has been unusually cold, with a great many snow-squalls; very little of the time that the ground has not been covered.

Tioga, Pennsylvania.—Twelve and a half inches of snow during the month; five inches of it on the 6th and 7th, and five inches on the 23d. Steady cold weather all the month; ground covered with snow; excellent sleighing; very favorable for lumbermen, and they are improving it by getting large stocks. Very favorable also for winter grain and clover. Under the snow the ground is not frozen more than four inches deep; ice in the river fourteen inches thick.

Wilmington, Delaware.—Eleven and a half inches of snow during the month; rain on the 23d.

St. Mary's City, Maryland.—Eight inches of snow in January; rain on the 22d.

Sykesville, Maryland.—January 23.—The trees and shrubbery bent down with sleet; rain and snow in the afternoon. 24th, best sleighing this winter; the ground was frozen hard when the sleet came, then the snow, and again rain and snow; all froze hard together. Six and three-quarter inches of snow during the month.

Annapolis, Maryland.—Three and a half inches of snow on the 3d, and nearly half an inch on the 6th; sprinkles of snow several times afterwards.

Hilton Head, South Carolina.—No snow during the month; rain on the 23d.

Beaufort, South Carolina.—No snow; two inches of rain on the 22d.

Natchez, Mississippi.—No snow; ice on the 1st; ice on the 24th half an inch thick.

Smithville, Kentucky.—Twenty-one inches of snow during the month; 3.8 inches on the 23d.

East Fairfield, Ohio.—Twenty-one inches of snow in January; three inches on the 23d.

Cincinnati, Ohio.—Sixteen and six-tenths inches of snow during the month; three and a third inches on the 23d.

Kingston, Ohio.—Amount of snow, 13.3 inches; snow on the 23d, amount not given.

Cleveland, Ohio.—Amount of snow, 13.1 inches; rain on the 22d.

College Hill, Ohio.—Amount of snow, twenty-six and a quarter inches; five inches on the 23d.

Portsmouth, Ohio.—January 4: Ice very heavy in the Ohio river. January 7, snow from 1 a. m. to 6 a. m., ten inches in five hours. This was the heaviest fall of snow ever known here in so short a space of time; had the ground been dry the snow would have been much deeper. 15th, some ice in the Ohio river. 18th, ice packed by our merchants six and a half to seven inches thick. 25th, navigation suspended on account of ice; fine skating. Fall of snow during the month, nineteen and three-quarter inches. The snow, on the 7th, was from eight

to twelve inches deep at a number of stations in Ohio; at Cleveland it was only an inch and a half.

New Lisbon, Ohio.—Twenty-four and a half inches of snow during the month; four inches on the 23d. January 31, although the weather has been very cold, the ground is frozen but slightly, in consequence of the heavy snow covering it.

Hillsboro', Ohio.—There was good sleighing the whole month of January, but the snow is melting to-day, February 1.

Kelley's Island, Ohio.—January 18.—Channel frozen entirely over; mail crossed wholly on the ice. 24th, channel again open through the middle; west wind has blown the ice down the lake. Amount of snow during the month, nine inches. The mean temperature of the month was 4.89 degrees below the mean of January for the last five years.

Westerville, Ohio.—Amount of snow during the month, eighteen inches; five inches on the 23d. There has been more and better sleighing this winter than has been known in Ohio for many years; perhaps not more in quantity, but it remained longer.

Urbana, Ohio.—The first four days of the month the ground was covered with snow; the 5th there was none on the ground; snow fell again on the 6th, and the ground is still covered at the end of the month; the sleighing has been good for three weeks. Amount of snow during the month, ten inches and seven-tenths; three inches on the 23d.

Bethel, Ohio.—Amount of snow, nineteen inches.

Saybrook, Ohio.—Some snow has fallen on perhaps half the days of the month, including some of the coldest. Amount of measure during the month, seventeen inches.

Welshfield, Ohio.—Twenty-eight inches of snow during the month; an inch and a half on the 23d.

Wooster, Ohio.—Eleven and one-sixteenth inches of snow during the month.

Smithville, Ohio.—Fifteen and a quarter inches of snow during the month; two and a half inches on the 23d.

Milnersville, Ohio.—Fifteen and a half inches of snow during the month.

Ripley, Ohio.—Seventeen and three-tenths inches of snow during the month; two and a half inches on the 23d.

Steubenville, Ohio.—Snow fell on twenty-six days in small quantities; amount not given. The ground, at the end of the month, is covered, and sleighing more and better than for several years.

Monroe, Michigan.—Nine inches of snow during the month; four inches of it the 9th and 10th, and five inches on the 26th and 27th.

Lansing, Michigan.—Six and a half inches of snow during the month.

New Albany, Indiana.—Fifteen inches of snow during the month; eight inches on the 6th and 7th, three on the 10th, one on the 19th, and three on the 22d and 23d.

Madison, Indiana.—The month has been unusually cold, with more snow than has been known for several years past. The ground was somewhat frozen before the snow fell. Sleighing has been good for two or three weeks. Amount of snow during the month, twenty-two inches.

Newcastle, Indiana.—Ten inches of snow during the month.

New Harmony, Indiana.—The maximum temperature for January was 48°, the lowest maximum during twelve years, except in 1856, when it was the same; the highest maximum was 67°, in 1864. The minimum temperature of the month was 1°; in 1864 it was 15° below zero; the highest minimum during twelve years was 22°, in 1858. The range of temperature for the month was 47°; in 1864 it was 82°. The least range during twelve years was 37°, in 1858. The mean temperature for the month was 28.24°; the lowest mean during twelve years was 20.4°, in 1857; the highest, 40.6°, in 1861.

Rensselaer, Indiana.—The month of January has been dry, and rather cold, but remarkably free from the sudden changes of temperature so common in this climate, and especially on the broad, elevated prairies of northern Illinois and Indiana. Amount of snow during the month, 5.65 inches.

Vevay, Indiana.—The large amount of snow (eighteen inches) which fell from 10 p. m. of the 7th to 5 a. m. of the 8th, created a heavy rise in the Ohio river, threatening an overflow at this place and various points below, which, however, was checked by the continuous cold weather which set in. The accumulation of ice in the river is very great, endangering navigation, which was entirely suspended during the last week of the month. The amount of snow fallen at this point in January was not less than thirty-five inches.

South Bend, Indiana.—Fall of snow during the month, fifteen and three-quarter inches.

Bloomingdale, Indiana.—Eight inches of snow during the month.

Indianapolis, Indiana.—Amount of snow during the month, 17.8 inches.

Springfield, Illinois.—Amount of snow recorded, $4\frac{1}{4}$ inches; several snows are entered on the register, but no depth given; probably small.

Ottawa, Illinois.—Four and a half inches of snow during the month.

Tiskilwa, Illinois.—Two and a half inches of snow during the month; one inch of it on the 16th, an inch and a half of it on the night of the 21st. Snowed for a few minutes at 7 p. m. of the 8th.

Waverly, Illinois.—January has been the most remarkable of any winter month for a period of twenty-five years, for the uniform range of temperature—cold and dry, without rain or snow. On the 1st of the month the depth to which the ground was frozen was eleven inches, which gradually increased in depth until the end of the month, when it measured eighteen inches. The streams of water are all frozen, and the public roads are as solid and smooth as a railroad. Two inches of snow fell on the night of the 8th; no other rain or snow is recorded during the month.

Elmore, Illinois.—An inch and three-quarters of snow during the month.

Sandwich, Illinois.—January has been the dryest month since my recollection, no rain falling, and only two and a half inches of snow—an inch on the 15–16th, and an inch and a half on the 22d; a slight amount also fell in the night of the 8th, not measured. There has been no freezing and thawing, and hence winter wheat is thus far but little injured. Abating the cold week near the end of the month, January has been rather milder than the average for a number of years.

Riley, Illinois.—Half an inch of snow on the 16th, and six inches on the 22d.

Wyanet, Illinois.—A sixteenth of an inch of snow on the 3d, an inch on the 16th, and an inch and a half on the 22d.

Hoyleton, Illinois.—Four inches of snow on the 6th, and one inch on the 9–10th.

Chicago, Illinois.—Snow on the 8th, 22d, and 23d.

Clinton, Illinois.—Two and a half inches of snow on the 9th, and one and a half inch on the 17th.

Augusta, Illinois.—A quarter of an inch of snow in the night of the 8th, three-quarters of an inch on the 16th and 17th, and three-quarters in the night of the 21st.

Winnebago, Illinois.—Two inches and six-tenths of snow, an inch and a half of it on the 22d. Winter, thus far, (January 31,) dry, and fine for stock.

Elmira, Illinois.—One inch of snow on the 17th, and two inches on the 21st.

Galesburg, Illinois.—Two inches of snow on the 16th, and one inch on the 21st. The water is low in cisterns and wells.

Peoria, Illinois.—Light snow on the 8th, 16th, and 21st.

Manchester, Illinois.—Three inches of snow on the 21st and 22d.

Hennepin, Illinois.—Though the weather has been variable in January, the changes were not sudden nor extremes great. No storms and less severity of wind than usual. Comparative steadiness and low temperature of weather has rendered stock water scarce in many neighborhoods. The present thaw (February 3) will give them plenty of water.

Allenton, Missouri.—Five and one-eighth inches of snow during the month; four and a half inches of it on the 9th and 10th.

Athens, Missouri.—January has been cold and dry; no rain, and only an inch of snow—three-quarters of an inch on the 16th and 17th, and a quarter of an inch on the 22d. There has been great trouble to get water for stock. The ice on the Des Moines river, above the dams, is fourteen inches thick, very hard and pure; the best winter for putting up ice for twenty years.

Canton, Missouri.—One inch and thirty-five-hundredths of snow during the month—a fourth of an inch on the 8th; a tenth on the 16th, and an inch on the 21st.

Easton, Missouri.—One inch of snow on the 8th, and an inch and seven-tenths on the 21st.

Harrisonville, Missouri.—Two and a half inches of snow on the 8th, and two inches on the 21st.

Bloomfield, Wisconsin.—Three inches of snow on the 22d; no other recorded during the month. January 31, temperature of water in well forty feet deep, 45°; temperature of air, 34°. This is lower than for the two years preceding, when it was 48° and 49°. The ice in Geneva lake is from twenty-one inches to two feet thick; last year the ice was fourteen inches.

Baraboo, Wisconsin.—Half an inch of snow on the 4th, quarter of an inch on the 20th, and four inches on the 22d.

Embarrass, Wisconsin.—One inch of snow on the 4th; half an inch on the 14th and 15th; eight inches from the 19th to the 22d, and half an inch in the night of the 26th—ten inches in all.

Waupacca, Wisconsin.—Five inches of snow from the 19th to the 21st; no other recorded.

Green Bay, Wisconsin.—Six inches of snow during the month, distributed nearly equally on the 4th, 13th, 19th, 21st, 22d, and 30th.

New Holstein, Wisconsin.—A few flakes of snow on the 15th, 16th, and 20th, and five inches on the 21st and 22d.

Plymouth, Wisconsin.—A few flakes of snow on the 14th, 15th, 16th, and 19th, and four inches on the 21st and 22d. Depth of ground frozen on the 31st about two feet eight inches; where the ground is covered with about ten inches of snow it is frozen only a few inches.

Delavan, Wisconsin.—Six-hundredths of an inch of snow on the 16th, and three and six-tenths inches on the 21st and 22d. A few flakes on several other days.

Manitowoc, Wisconsin.—Amount of snow during the month 3.87 inches.

Milwaukee, Wisconsin.—A quarter of an inch of snow on the 10th, and two and a half inches on the 21st and 22d.

Saint Paul, Minnesota.—Six and a quarter inches of snow fell during the month, five inches of it on the 19th and 20th.

New Ulm, Minnesota.—One inch of snow on the 16th, one on the 18th, and two on the 20th.

Minneapolis, Minnesota.—Seven and a half inches of snow on the 19th and 20th; a little on three other days, not measured.

Clarinda, Iowa.—Three inches of snow during the month; one inch on the 16th and 17th, and two inches on the 21st.

Algona, Iowa.—Six inches of snow on the 20th; no other during the month except a few flakes on the 13th and 16th.

Lyons, Iowa.—Slight snow for half an hour on the 4th, an inch on the 15th and three inches on the 22d. Ice on the river sixteen inches thick.

Independence, Iowa.—Four-tenths of an inch of snow on the 2d, one inch on the 16th, and an inch and a half on the 22d.

Monticello, Iowa.—Half an inch of snow on the 16th, two inches and four-tenths on the 22d. January 16: Temperature of springs 48°, which is three degrees lower than in August last; temperature of wells average, as far as examined, 44°, which is from four to six degrees lower than in August last.

Iowa City, Iowa.—Snow on the 3d, 16th, and 22d, in all 3.15 inches; two inches of it on the 22d.

Dubuque, Iowa.—Amount of snow during the month 2.26 inches, one inch of it on the 16th and one inch on the 22d. The snow-storm of to-day (the 22d) from the northwest is of unusual occurrence. Such storms almost always come from an easterly or southerly direction.

Muscatine, Iowa.—Six inches of snow during the month; one inch on the 2d, one on the 8th, two on the 15th, and two on the 22d.

Guttenberg, Iowa.—One-tenth of an inch of snow on the 8th, seven-tenths on the 16th, and one-tenth on the 20th.

Olatha, Kansas.—One inch and three-quarters of snow on the 8th, and a quarter of an inch on the 21st.

Manhattan Kansas.—Three inches of snow on the 21st, and a very little at noon on the 8th.

Bellevue, Nebraska.—Half an inch of snow on the 17th, and two inches on the 20th.

Nursery Hill, Nebraska.—One inch of snow on the 20th, and two inches on the 21st. Ground frozen twenty and a half inches deep on the 2d day of January.

METEOR.

A very large and brilliant meteor was seen from different towns in Minnesota on the morning of the 27th of January.

NOTE.—The late disastrous fire at the Smithsonian Institution will not interrupt the active operations of the establishment. Though most of the meteorological records were preserved, a number of sheets are wanting, which it is hoped the observers may be able to supply hereafter, when a list of deficiencies can be made out. All the *blank* registers were lost, but a new supply will soon be obtained, and correspondents will be furnished with them.